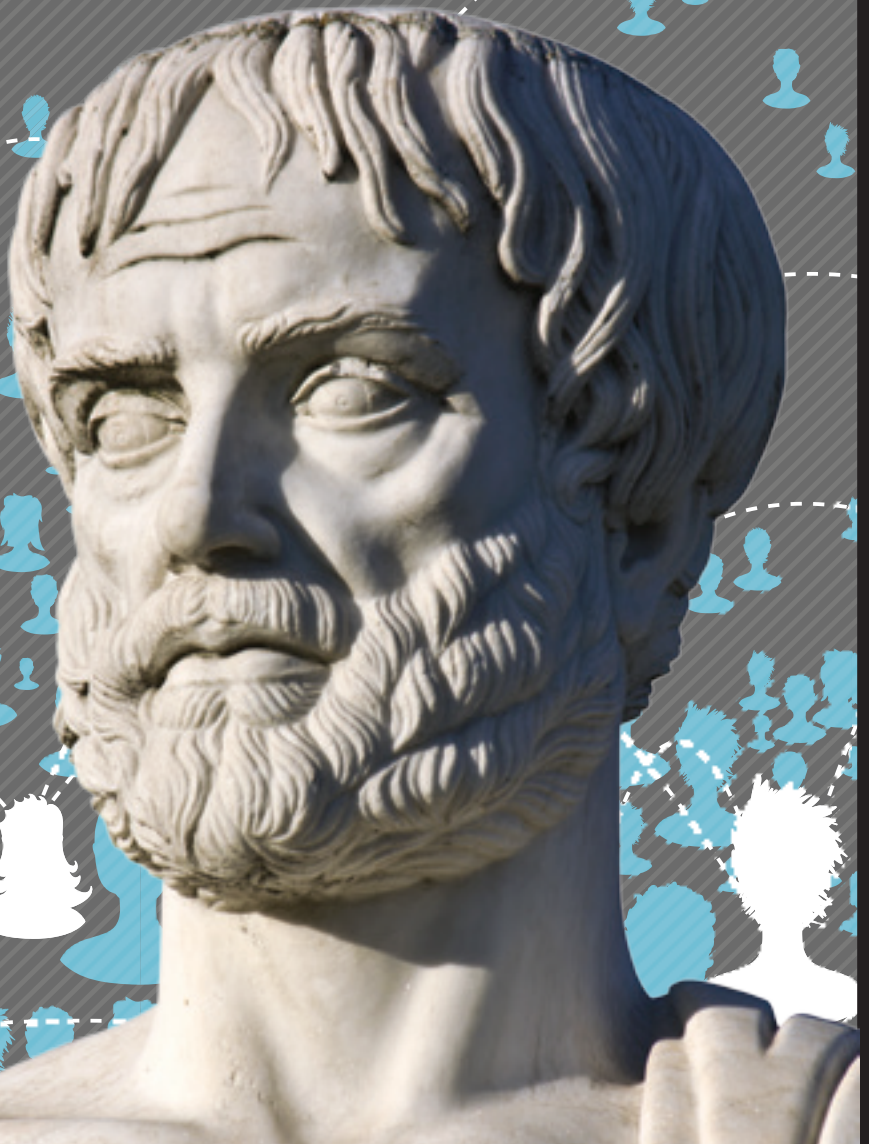


# Technical COMMUNICATION

*Journal of the Society for Technical Communication*

## WEB-BASED CROWD FUNDING: RHETORIC OF SUCCESS

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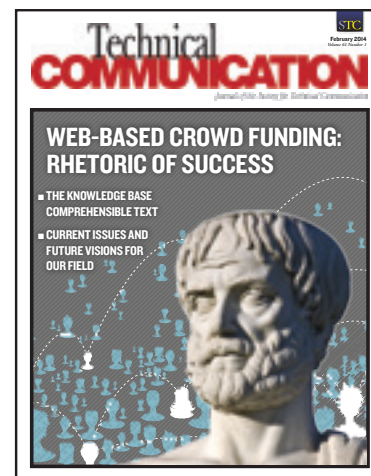
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Menno D.T. de Jong, Editor

# The Technical Communication Business Case: Value Added or Social Responsibility?



Last year's volume of *Technical Communication* ended with a special issue, guest edited by Hillary Hart and Craig Baehr, focusing on sustainably developing a body of knowledge. The articles contained in the special issue provided relevant insights for the Technical Communication Body of Knowledge (TCBOK) project, which I consider to be a crucial project for the growth and development of our discipline. I would like to express my gratitude and admiration to Hillary and Craig for collecting a great and diverse set of articles about this significant topic.

When we think about growth and development of technical communication, it seems to be important to consider two different levels: the level of the discipline as a whole and the level of technical communication professionals working for companies. The two levels are, of course, related.

On the level of the discipline as a whole, it is necessary to have a strong and active professional association. The Society for Technical Communication has played this role for more than 60 years, and will continue to play its part. STC's chapters, its special interest groups, and the yearly Technical Communication Summit facilitate a lively exchange between technical communication practitioners and academics. *Technical Communication* and

*Intercom* contribute to the ongoing development of academic and practical knowledge, and initiatives like the TCBOK and STC's certification program provide the more overarching views on the status of our discipline. In addition, it is important for the discipline that there are reputable academic programs of technical communication.

But what about the technical communication professionals working for companies? In the literature we can see traces of the struggles technical communication professionals have to face. Many of the struggles involve money and return on investment. Accountability has been an increasingly important issue in the entire communication field. Managers want to know whether their money is well-spent with specific communication activities. At the same time, they are increasingly focusing on easy-to-operationalize and easy-to-measure characteristics. The quality of user support does not fall under that category. It takes a thorough evaluation to form a judgment about user-friendliness. The combination of a request for evidence of value added and a focus on easily measurable indicators is a disadvantageous one for technical communication professionals.

In the past we have seen a number of excellent attempts to reflect on the value added

by technical communication professionals—by Corbin, Moell, and Boyd (2002), Henry (1998), Mead (1998), Ramey (1995), and Redish (1995)—which together form a promising framework for further studying value added issues. Unfortunately, there have been no substantial publications following up on this work. In a time of budget cuts, outsourcing and offshoring, renewed research attention for the value added by technical communicators would be more than welcome, preferably in the form of empirical research seeking evidence for the value added.

A problem with value added approaches is that the cost reduction and the benefits may only show after considerable time; for instance, because customer experiences with suboptimal products and/or user support will take some time to emerge, and their reactions to such experiences may even take longer.

One could also argue that such an economic perspective on the work of technical communicators is neither necessary nor justified. Producing high-quality products, such as technical devices or software, simply requires that the user support is of the same high quality as the products themselves.

Enhancing the functionality of products and making users pay for newer improved versions can only be justified if the users are adequately instructed about the new functionality. This reminds me of the priceless button of Human Factors International: "If the user can't find it, the function's not there." In this light, adequate user support is merely a matter of social responsibility.

This brings me to a second phenomenon that deserves more research attention. In my view, the underuse of devices and software is an amazingly underresearched topic. The discrepancy between engineers developing more and more functionality and users only using a small portion of that to their benefits asks for a reflection on the balance, and ideally an integration, between product development and user support. The quality of the user support should be an obvious part of product quality.

### In This Issue

This first issue of 2014 contains three articles with a very different scope. In the first article, Ilya Tirdatov describes a rhetorical analysis of crowd funding Web sites. Using the traditional concepts

of *ethos*, *pathos*, and *logos*, he analyzed thirteen crowd funding project descriptions posted on Kickstarter. The research is a fine example of how rhetorical analysis can be very practically relevant.

In the second article, Leo Lentz, Henk Pander Maat, and Ted Sanders describe the Knowledge Base Comprehensible Text, a digital resource containing research on the comprehension and usability of documents. The Knowledge Base they describe is both more general and more specific than the Technical Communication Body of Knowledge. It is more general because it also includes research from other realms than technical communication. It is more specific because it focuses on comprehension and excludes many other issues that may be relevant for technical communicators.

In the third and last article, Jenni Virtaluoto provokingly writes about "the death of the technical communicator." Based on autoethnographic data and interviews, she describes the daily work of technical communicators and the issues they are facing. A prominent challenge described is the difficulty of really incorporating users in the daily work practice.

This issue's Book Reviews section is complemented by a Tools of the Trade article in which Avon Murphy describes and compares four books on responsive Web design.

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# Web-Based Crowd Funding: Rhetoric of Success

Ilya Tirdatov

## Abstract

**Purpose:** To identify the main rhetorical techniques actually used to secure investors' support in some of the most successful (most-funded) Web-based crowd funding projects. The study serves to bridge the gap between theoretical research of rhetoric and the needs of business communication practitioners by identifying the means of persuasion that can be used by online crowd funding entrepreneurs.

**Method:** Qualitative analysis of thirteen crowd funding project descriptions posted on a major Web site—www.kickstarter.com—was performed to identify specific rhetorical techniques via text coding. The sample included the most-funded projects to date, one from each of the thirteen project categories on Kickstarter. Aristotle's concept of *ethos*, *pathos*, and *logos* served as a basic framework for developing a more detailed classification of rhetorical means of persuasion used in the projects.

**Results:** The most-funded projects have been found to contain all three types of rhetorical appeals (*ethos*, *pathos*, and *logos*), subdivided into a total of twelve specific subtypes most commonly encountered in the descriptions from the sample. The subtype definitions have been developed and refined over the course of several reviews.

**Conclusion:** The research data made it possible to create a "rhetorical profile" of a successful crowd funding project description representing a summary of the rhetorical techniques identified during the study. Although this summary reflects a hypothetical all-inclusive case, it can be used as a benchmark when drafting crowd funding project descriptions. The study also identified specific directions for future research that could determine the influence of project description rhetoric on donor decisions.

**Keywords:** crowd funding, crowdfunding, practical rhetoric, marketing communication, persuasion

## Practitioner's Takeaway

- Textual descriptions of crowd funding projects represent a major component of the online solicitations for investment.
- Knowing the persuasive techniques actually used in the texts describing some of the most successful (that is, most-funded) projects may be useful for individuals and organizations planning to try their hand at raising funds in same or similar online settings.

## Web-Based Crowd Funding

### Background

#### Web-Based Crowd Funding

Crowd funding or crowdfunding (also referred to as crowd sourcing and crowd financing) refers to a simplified method of raising funds for projects by simultaneously addressing a large pool of potential investors. Although the crowd funding concept may not be new, the method of using Web sites for soliciting funding from individual investors in a relatively informal environment represents a recent trend, and the modern definitions of the term often incorporate the online media. For example, the Oxford Dictionaries Web site defines crowd funding as “the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet” (<http://oxforddictionaries.com/definition/english/crowdfunding>).

The popular crowd funding Web site [www.artistshare.com](http://www.artistshare.com) that focuses on connecting creative artists with fans willing to provide donations, which was launched in 2003, credits itself for being “the Internet’s first *fan funding* [emphasis in the original] platform” (ArtistShare, 2012). Since then, several Web-based businesses have emerged, broadening the scope of crowd funding efforts beyond the artistic environment and extending it to business projects of various types. The majority of popular crowd funding Web sites existing today were created in or after 2008 (Gerber, Hui, & Kuo, 2012).

The existing crowd funding Web sites vary, both by the rules of soliciting investment and by the profile of admissible projects. Some Web sites, such as [www.kickstarter.com](http://www.kickstarter.com), require individuals or entities seeking funding (hereinafter referred to as “project owners”) to establish a target amount of financing, with funds actually changing hands only when this target is reached (Kickstarter, 2012). Other Web sites, such as [www.indiegogo.com](http://www.indiegogo.com), allow project owners to collect and keep the funds collected irrespective of whether the target has been reached or not (Indiegogo, 2012). Also, while both of these Web sites are rather versatile in terms of the types of projects published, other Web sites maintain a more narrow focus. For example, the Web site [cofundos.org](http://cofundos.org) focuses on open source software projects, and [www.pledgemusic.com](http://www.pledgemusic.com) specializes in securing support for musicians from their fans.

The textual descriptions of projects posted on crowd funding Web sites are usually intended to attract

the maximum funding from the maximum number of investors by presenting a compelling statement that is supposed to demonstrate a variety of advantages to be obtained by investing in the project. Since Aristotle’s means of persuasion—*ethos*, *pathos*, and *logos*—also called “appeals,” address the persuasive function of rhetoric in a fundamental and comprehensive way, the crowd funding project descriptions appear to represent highly suitable material for in-depth analysis based on Aristotle’s concept of rhetorical appeals. Such analysis can also serve as a powerful means of developing practical recommendations for preparing compelling and persuasive crowd funding project descriptions, and can therefore have a high value both for academics and practitioners.

#### Definition of Aristotle’s Rhetorical Appeals

To establish a basis for the study, it is important to refer to the original definition of rhetoric and rhetorical appeals provided by Aristotle.

According to Aristotle, rhetoric represents “the faculty of observing in any given case the available means of persuasion” (Aristotle, trans. 1954). It should be noted that this definition is quite broad. Although Aristotle himself narrows it down, this definition forms the basis for a broader understanding and interpretation of rhetoric in modern times, as further discussed below.

Aristotle described three modes of persuasion—*ethos*, *pathos*, and *logos*—as follows: “The first kind depends on the personal character of the speaker; the second on putting the audience into a certain frame of mind; the third on the proof, or apparent proof, provided by the words of the speech itself” (Aristotle, trans. 1954). Aristotle further defines the three modes of persuasion. About *ethos*, he states:

Persuasion is achieved by the speaker’s personal character when the speech is so spoken as to make us think him credible. ... This kind of persuasion, like the others, should be achieved by what the speaker says, not by what people think of his character before he begins to speak (Aristotle, trans. 1954).

This statement defines *ethos* as a way to achieve credibility. It also presents evidence that, according to Aristotle, the persuasive power of the rhetorical appeals depends on rhetor’s choices—that is, the things he/she chooses to include in or exclude from the discourse.

The modern definition of *ethos* has been extended beyond Aristotle's original concept of achieving credibility through establishing good personal character of the rhetor. In her book about the rhetoric of online discourse, Gurak notes that, online, the ethical character of the rhetor is not being challenged in the first place, and it is the rhetor's professional affiliations and "contributions to life on the Internet" that serve as basis for *ethos*-building (1997). The present study, which is fully dedicated to online discourse, is based on this modern interpretation of *ethos* suggesting that credibility can be achieved not so much by establishing rhetor's moral character, but rather by different means, such as projecting the rhetor's competence and professionalism. A simple example of an *ethos* claim can be found in one of the Kickstarter project descriptions promoting Rift—a high-tech gaming device: "The Rift is developed by a team of industry veterans..." (<http://www.kickstarter.com/projects/1523379957/oculus-rift-step-into-the-game>). Here we see a claim of professionalism made via a reference to extensive practical experience.

About *pathos*, Aristotle says:

Secondly, persuasion may come through the hearers, when the speech stirs their emotions. Our judgments when we are pleased and friendly are not the same as when we are pained and hostile (Aristotle, trans. 1954).

Therefore, *pathos* is a mode of persuasion intended to produce emotions in the audiences. Aristotle's definition provided above, together with the fact that he chooses to differentiate between *pathos* and the other two appeal types—*ethos* and *logos*—suggests that *pathos* appeals can cover a broad variety of discourse content that neither centers on logical reasoning, nor attempts to establish the rhetor as a credible source. Rather, *pathos* appeals are those intended to generate the desired emotional response by whatever means are appropriate to a given discourse situation.

It should also be noted that Aristotle does not narrow *pathos* appeals down to those intended to produce positive emotions only. He simply differentiates between the judgments made "when we are pleased and friendly" and those made "when we are pained and hostile," but does not state his preference for either. For example, referring to the negative consequences of a

failure to adopt the proposed course of action may (at list temporarily) generate negative emotions, such as those of fear and anxiety, but could still be a valid *pathos*-based persuasive technique.

One of the examples of a *pathos*-based appeal from a Kickstarter project started by a pop musician can be found in the following text: "...one of my favorite things about this is that i'll get to MEET [emphasis from the original] you guys in person, and thank you for your backing with a kiss" (<http://www.kickstarter.com/projects/amandapalmer/amanda-palmer-the-new-record-art-book-and-tour>). In this case, both promises contained in the text (that of a personal meeting with the artist, and that of a kiss) involve positive emotional rewards offered in exchange for project support.

Finally, the following sentence defines *logos*:

Thirdly, persuasion is effected through the speech itself when we have proved a truth or an apparent truth by means of the persuasive arguments suitable to the case in question (Aristotle, trans. 1954).

Based on this description, logical arguments used in the discourse to support certain claims (and not belonging to either *ethos* or *pathos* as defined by Aristotle) can be classified as *logos*-based appeals. This mechanism of logical argumentation described by Aristotle serves as the basis for identifying logical claims in the crowd funding project descriptions as follows. Since the ultimate goal of crowd funding project owners is to secure funding, the "truth or an apparent truth" to be proved in this case would be that their projects are worth the investments. The logical and factual content supporting this "truth" (and not belonging to either *ethos* or *pathos* based on the respective definitions of each appeal type) is therefore considered as *logos*-based claims within this study. The specific approach to *logos* appeals categorization is further discussed in the "Methodology" section.

One example of a logical argument supporting the need for donations can be found in the Kickstarter project aimed at restoring a historic movie theater: "The Catlow still draws enough customers to keep the doors open, but the expenses continue to rise; mortgage, utility and supply bills, employee expenses, cleaning staff and, of course, taxes" (<http://www.kickstarter.com/projects/468036259/rescue-the-historic-catlow-theater-from-extinction>). In the present study, this sober, logical narrative was classified as one of the subtypes of *logos*-based arguments, namely

## Web-Based Crowd Funding

those explaining the need for donations without offering any specific rewards to donors.

Aristotle also establishes the difference between the modes of persuasion related and unrelated to the art of rhetoric:

Of the modes of persuasion some belong strictly to the art of rhetoric and some do not. By the latter I mean such things as are not supplied by the speaker but are there at the outset—witnesses, evidence given under torture, written contracts, and so on. By the former I mean such as we can ourselves construct by means of the principles of rhetoric. The one kind has merely to be used, the other has to be invented. (Aristotle, trans. 1954)

However, this distinction involves a certain ambiguity. In fact, the things present at the outset that Aristotle talked about may actually be referred to by the rhetor within the discourse via inventional persuasive tactics, thus demonstrating the rhetor's "faculty of observing in any given case the available means of persuasion." That is, rather than leaving evidence to speak for itself, the rhetor makes (1) a conscious choice to use (or not to use) such evidence as the "available means of persuasion," as well as (2) the choice of the specific format and rhetorical techniques for presenting the evidence, giving this evidence a valuable rhetorical meaning.

For example, a speaker may be a famous figure in a certain field, but when a specific audience has no prior knowledge of this fame, it could be highly beneficial to establish the speaker's high standing by referring to it in the most rhetorically-effective way. Therefore, such evidence (not being rhetorical by itself) becomes rhetorical once included in the narrative, even though it may be based on facts or phenomena already existing outside of the discourse. From this perspective, the act of "inventing" mentioned by Aristotle represents the rhetor's conscious choice of deliberately referring to these facts or phenomena in order to meet the goals of the discourse and choosing a rhetorically effective way of doing so; this interpretation of Aristotle's concepts constitutes the basis for the present study.

### Rhetoric in Crowd Funding and Related Fields

Due to the novelty of the online crowd funding concept, prior research related to the rhetoric of crowd funding solicitations appears to be scarce to non-existent.

Existing research focusing on the motivations of crowd funding participants fails to offer in-depth rhetorical analysis of crowd funding project descriptions. One study involved a comprehensive qualitative analysis of 39 interviews with project owners and investors performed through coding the interview transcripts and identifying the common themes/motivational factors addressed by the interviewees (Gerber, Hui, & Kuo, 2012). However, there may be a gap between the underlying motivations of participants and the actual rhetoric used in the most successful crowd-funding projects, with motivation research being highly relevant to, but still substantially different from the present study. For example, the present study found rhetoric of identification to be the scarcest rhetorical technique of those analyzed, while in the study by Gerber, Hui, and Kuo, identification (developing a sense of belonging) was found to be a major motivational factor.

Several studies of rhetoric were dedicated to fundraising, an area both similar to and different from crowd funding. Both processes involve broad solicitation of (often small) financial contributions from multiple individual donors. The difference is based on the fact that, unlike crowd funding, traditional fundraising covers nonprofit/charitable activities (Webber, 2004), while the genre of crowd funding includes both for-profit and nonprofit projects. However, even the for-profit crowd funding project solicitations may incorporate rhetorical elements similar to those used in fundraising (which will be discussed in more detail below), making the studies of fundraising rhetoric at least partly relevant to the realm of crowd funding.

Ritzenhein (1998) performed a content analysis of actual fundraising letters to address the limitations of the "best practices" that, previously, had largely been based on personal observations and experiences rather than solid academic research. The study did not specifically mention Aristotle's means of persuasion, but the emotional and logical support for arguments could be directly linked to *pathos* and *logos*, respectively. One of the conclusions of the study was that emotional arguments were used more frequently than logical ones, with a 60-40 ratio between the two types of arguments.

A more recent study explored persuasive techniques used in fundraising letters based on the Aristotelian triad of *ethos*, *pathos*, and *logos*. Similar to Ritzenhein, the researchers referred to the scarcity of solid research-based practical advice on the persuasive techniques to be



used in fundraising messages. This research resulted in the conclusion that credibility (or *ethos*-based) appeals were the most effective ones for soliciting donations, with a close tie between emotional and rational appeals (Goering, Connor, Nagelhout, & Steinberg, 2011).

In her article Myers (2007) explores the use of pathetic appeals in charity letters. Providing an overview of how the definition of *pathos* evolved from ancient to modern times, the author emphasizes the role of style in pathetic appeals. That is, it is not only important what is being said to stir audiences' emotions, but also how exactly the narrator says it, and what specific language and format tools and techniques (ranging from parallelism to the use of boldface characters) are employed in the narrative.

In her rhetorical analysis of charitable contribution reply forms, Schaffer does not make specific references to Aristotle's modes of persuasion. However, at least two appeal types—*pathos* and *logos*—can be identified just by looking at the form “features” she identified. For example, “offer of goods” in exchange for donations involves practical benefits for donors, and could thus be viewed as a rational (or logical) appeal. At the same time, features such as “emotional language,” “generosity statement,” and “thanks statement” seem to point in the direction of pathetic rhetoric (Schaffer, 2002).

Since crowd funding mainly represents a Web-based activity, studies of online and digital rhetoric are also relevant to the present research project. A study of art gallery Web design rhetoric using Aristotle's triad as a framework identified the usefulness of all three appeals (*ethos*, *pathos*, and *logos*) in the vast majority of cases (Quesenberry, Garland, & Sykes, 2006). Rife addressed rhetoric as a tool of digital survey recruitment, with findings suggesting that the use of very simple *ethos*-, *pathos*-, and *logos*-based techniques could greatly improve recruitment rates. For example, the number of survey responses increased when the author positioned himself as a student rather than a teacher as a method of building *ethos* (Rife, 2010). Focusing on computer-mediated discourse, Branham further explores the meaning of *ethos* in digital communications, noting that shaping *ethos* can be a bilateral, feedback-based process. Rather than projecting a pre-determined ethical image, rhetors can “...perceive and process the self-presentations of their human conversational partners,” thus adapting their *ethos*-building strategies to a specific audience (Branham, 2009, p. 38).

A study focusing on business communication addressed corporate *ethos* on the Web (Isaksson & Jørgensen, 2010). While attempting to identify similar ethical themes in corporate self-presentations, the authors seemed to have inadvertently touched upon the issue of overall relativity in the distinctions between the three modes of persuasion, a problem also addressed by Killingsworth (2005) and discussed in more detail in the “Methodology” section. Namely, they have focused on ethical claims of expertise, trustworthiness, and empathy, establishing a similarity in the use of these claims across three countries. However, here we can see a synthesis (or else a blurring of distinctions) between the three appeals. For example, *ethos* via claims of expertise may also be viewed as a *logos*-based appeal, since a company possessing expertise is likely to be able to offer higher-quality products and services. At the same time, *ethos* via empathy with potential customers seems to carry a heavy emotional component, thus creating potential for the interpretation of the respective claims as pathetic appeals. And yet again, a corporation demonstrating empathy and understanding of its customers' needs may simply be perceived as one likely to deliver customer-oriented products and services together with better customer service, and that brings us back to the realm of the rational (and thus—*logos*).

Such dilemmas of differentiation between the three rhetorical appeals demonstrate the need for creating custom classifications of appeals (based on highly specific and clear appeal type and subtype characterization) relevant to specific discourse genres. They also emphasize the relativity in Aristotle's original classification, which can be used as basis to create a specific research methodology and appeal classification, but not as all-encompassing classification ready for use “out of the box.”

The goal of a study by Connor and Gladkov was to develop and apply such a classification (“operational system”) based on Aristotle's three appeals to assist in future examination of fundraising discourse (Connor & Gladkov, 2004). The system was, in turn, based on Connor and Lauer's classification originally designed for academic essay writing and incorporating a total of twenty-three appeal subtypes within three main categories of “rational appeals” (*logos*), “credibility appeals” (*ethos*), and “affective appeals” (*pathos*) (Connor & Lauer, 1985). This approach of using Aristotle's triad as a baseline framework for developing specific appeal

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definitions (relevant to a certain discourse genre) was also adopted for the present study, as further discussed in the “Methodology” section below.

Using Aristotle’s triad of *ethos*, *pathos*, and *logos* as the basis for analysis, Hansen considered the rhetoric employed by National Transportation Safety Board (NTSB) in proposing regulatory changes to other agencies with the relevant authority. The paper describes the practical application of rhetorical strategies, such as attempts at eliminating the perceived subjectivity by removing human agents from *logos* claims (Hansen, 2003). His definition of *logos*, further discussed in the “Methodology” section, helps establish the appeal categorization principles used in the present study.

With the majority of crowd funding project owners in this study’s sample offering certain products to investors (as a reward provided in exchange for donations), much of the crowd funding solicitations represent a marketing communication activity, making the advertising and marketing rhetoric research highly relevant for this study.

Promoting the idea of “relationship marketing,” with collaborative two-way relationships between buyers and sellers presented as an alternative to the traditional concept of marketing mix (with its standardized approach towards customers), Andersen used the Aristotelian triad of *ethos*, *pathos*, and *logos* to analyze marketing communication processes (2001). *Ethos* (interpreted as a process of “developing an understanding of the communicator’s intentions and qualities” reflected in the audience’s beliefs about the communicator’s personality) and *pathos* (seen as the “communication climate” which defines the audience’s perceptions of communicator’s intentions) were seen as necessary elements for initiating constructive interaction with clients (*logos*), the latter interaction being defined as “persuasive communication through argumentation.” The author mentioned that rhetoric had been unjustly neglected in relationship marketing, emphasizing the inter-dependency of the three rhetorical appeals and stating that consistency between these three elements in marketing communication influenced the process of building and maintaining relationships with customers.

Using a more fundamental approach, in his literature review Tonks (2002) argued that the ancient theories of rhetoric continued to have a high relevance in the modern realm of marketing and should actually be considered a “core concept” for understanding and improving the marketing practice. According to Tonks,

“[t]he acquisition of power through marketing rhetoric is considered to be fundamental to marketing practice and marketing rhetoric is ... an instrumental device for the everyday reality of marketing managers or for anyone who practices marketing” (2002, p. 816).

In his article dedicated to copywriting rhetoric, Marsh (2007) notes that, in advertising, gathering product facts as basis for creative development reflects Aristotle’s concept of invention, which involves generating ideas for a compelling narrative. Similar to Tonks’ views on the role of practical rhetoric in the marketing field, Marsh advocates convergence between rhetorical studies and advertising, both in academic and workplace environments. He notes that, while advertising may actually be the most widespread form of modern rhetoric, “...the discipline is virtually absent in rhetorical studies” (Marsh, 2007, p. 168).

As noted above, crowd funding may be considered a “close relation” of marketing, which is also suggested by the article “Crowd-funding: Transforming customers into investors through innovative service platforms” (Ordanini, Miceli, Pizzetti, & Parasuraman, 2011). Therefore, the present research project was intended to build upon Tonks’ and Marsh’s arguments supporting the study and application of rhetorical theories in advertising and marketing by providing a detailed analysis of rhetoric in this particular field of business/marketing communication.

Modern rhetoric as a practical art of persuasion seems to receive surprisingly little attention from business practitioners, being largely confined to the realm of academia. The present study therefore aims to bridge the gap between the academic traditions of studying rhetorical theory and the practical requirements of business activities, demonstrating how rhetorical tools can be used effectively in a particular business setting and providing a basis for developing specific practical recommendations related to the use of crowd funding project rhetoric.

## Methodology

### Scope of the Study

The study involved rhetorical analysis of textual descriptions of crowd funding projects posted on [www.kickstarter.com](http://www.kickstarter.com), a Web site selected based on (1) its relative versatility in terms of the types of projects covered and (2) the proven track record of helping

secure substantial financing (in excess of \$100,000) for several projects.

The Kickstarter Web site lists a total of thirteen project categories: Art, Comics, Dance, Design, Fashion, Film & Video, Food, Games, Music, Photography, Publishing, Technology, and Theater. Thirteen “most-funded” projects (that is, those that had the highest levels of investment to date) have been selected from the respective page on [www.kickstarter.com](http://www.kickstarter.com) (<http://www.kickstarter.com/discover/most-funded?ref=sidebar>), one from each of the thirteen categories covered by the Web site. These projects are listed in Table 1.

The project descriptions posted on [www.kickstarter.com](http://www.kickstarter.com) incorporate graphical elements, which, alongside with the texts, can serve as powerful rhetorical tools to attract potential investors. The focal point of this study, however, was textual descriptions; graphical elements are suitable for future research.

The review of the crowd funding project descriptions resulted in a clearer definition of the scope of work. Included in the study were the body texts, that is, the overall descriptions of each project presented on a single Web page. Based on the project presentation structure and content, it appeared that these overall descriptions, containing the most important information about each project and incorporating all three of Aristotle’s modes of persuasion, served as the primary platforms for

appealing to potential investors. In addition to graphical elements and videos, excluded were hyperlinked information (the information presented on Web pages other than the one with the body text and connected to it via hyperlinks), figure captions (alongside with figures), FAQ sections (usually presented as hyperlinks), and the separately presented information on specific rewards obtained in exchange for specific amounts pledged. The information on pledges and rewards, although important, was often quite extensive and, at the same time, partly repetitive, the latter making it more likely to “clutter” the results of rhetorical analysis. It was excluded in order to (1) maintain focus on the main project descriptions presented in the body text and (2) avoid “diluting” the body text analysis results with extra (often repetitive) data.

### Coding and Development of Rhetorical Appeal Subtypes

The present study was implemented by the author of this paper. I have coded the project descriptions during the course of four reviews. The first review involved coding the textual descriptions of the selected projects with priori codes denoting Aristotle’s three types of rhetorical appeals/modes of persuasion—*ethos*, *pathos*, and *logos*; I have color-coded (highlighted) the text using a different color for each of the three rhetorical appeals. During the first review I also aimed to develop

**Table 1. List of Most-Funded Projects**

Project number	Category	Project title	Amount invested (by September 29, 2012)
1	Art	Ukiyo-e Heroes	\$313,341
2	Comics	The Order of the Stick Reprint Drive	\$1,254,120
3	Dance	Standard Time—The Workshop	\$31,028
4	Design	Pebble: E-Paper Watch for iPhone and Android	\$10,266,845
5	Fashion	Ministry of Supply: The Future of Dress Shirts	\$429,276
6	Film & video	Charlie Kaufman’s Anomalisa	\$406,237
7	Food	Nomiku: Bring Sous Vide into Your Kitchen	\$586,061
8	Games	Ouya: A New Kind of Video Game Console	\$8,596,474
9	Music	Amanda Palmer: The New Record, Art Book, and Tour	\$1,192,793
10	Photography	The Olympic City	\$66,162
11	Publishing	The Icarus Deception: Why Make Art? New from Seth Godin	\$287,342
12	Technology	Oculus Rift: Step into the Game	\$2,437,429
13	Theater	Rescue The Historic Catlow Theater from Extinction	\$175,395

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emerging codes for specific techniques (subtypes of rhetorical appeals) used within each type. This second set of codes has been implemented as “subcodes” of the priori codes. The coding with emerging codes (subcodes) was mainly conducted as part of the second review. Since further color-coding was not practical for multiple subcodes in terms of future ease of reference, I added notes describing the appeal subtypes (such as “LOGOS L1”) after each individual coded fragment. During the third and fourth (additional) reviews, I have further checked and updated the subcodes as required. These additional reviews were performed to refine the appeal subtype definitions and to ensure the correct classification in those cases where the subcodes were assigned to text potentially meeting the criteria for more than one subtype. Generally, the study followed the constant comparative method of qualitative research (Glaser, 1965), with data analysis being performed not only after, but also during the coding.

After the completion of subtype coding, I have counted the numbers of occurrences of each subtype across all projects, with a view to performing both qualitative and empirical analysis of the results. The rhetorical appeals have undergone a thorough qualitative analysis across all projects in order to identify the predominant rhetorical techniques that may have contributed to the success of the respective projects.

For the purposes of coding, one sentence was considered to be a single unit; that is, a single subtype of rhetorical appeal found within a single sentence was counted as one occurrence of this particular subtype of rhetoric. In those cases where a single sentence incorporated more than one rhetorical technique, it was counted as one occurrence of each of the individual rhetorical techniques found within that sentence. Where one or more localized rhetorical elements (such as forceful adjectives classified as *pathos*—“amazing,” “cool,” etc.) were present in a sentence, that counted as one occurrence of the respective appeal. In some cases, where more than one sentence was used to support a certain rhetorical appeal, each of these sentences was counted as an individual occurrence of the respective appeal, even if some of these sentences, when considered separately from the others, did not incorporate that specific appeal. Each item on bulleted lists and other lists (no matter whether large or small in terms of the amount of text) that was presented as a separate line was treated as an individual sentence.

### Practical Aspects of Rhetorical Appeal Classification

While some rhetorical appeals were easier to classify (for example, *ethos*-based appeals were some of the most distinctive ones in the texts), *logos*-based appeals were sometimes more difficult to identify, as well as to differentiate from the *pathos*-based appeals. Indeed, how does one distinguish *pathos* and *logos* in a text promoting a gaming console or the upcoming tour of a rock band, both representing means of entertainment that could be considered exciting but hardly practical? The arts and entertainment focus in several of the projects rendered the use of pragmatic logical arguments to support them somewhat challenging and almost always ambiguous in terms of differentiating logic from emotion.

Noting the existence of a general problem with interpreting Aristotle’s triad of *ethos*, *pathos*, and *logos*, in his book about modern rhetoric Killingsworth pointed to the difficulties of differentiation between the three modes of persuasion: “The problem is that authors demonstrate their character (good or bad) in every utterance; likewise, the emotions of the audience might attach to just about anything in a text; and without reasoning, nothing would make sense” (Killingsworth, 2005, p. 25). These observations appear to be valid in practically any discourse situation, including crowd funding. Due to the existence of a certain overall ambiguity related to Aristotle’s triad, as well as the issues specific to this study’s context as described above, in this research project Aristotle’s triad was used as a framework that had to be interpreted within and adapted to the realm of crowd funding in order to develop a robust basis for analysis.

Therefore, I had to make certain choices in terms of establishing criteria of differentiation between *pathos* and *logos*. The approach adopted during the review of the project descriptions was to classify as *logos* the information generally lacking elements of hyperbolized/emotional narrative and being relatively sober and objective in tone. At the same time, the more emotional text (for example, incorporating forceful adjectives) was considered to represent *pathos*. In those cases where “sober” descriptions included the emotional elements, the respective sentences were considered to carry elements of both *logos* and *pathos*.

Although an explicit attempt at persuasion could seem to be lacking in the neutral/descriptive parts of the narrative (that have been classified as *logos* for the purposes of this project), the classification was



considered to be valid due to the following reasons. First, the objects of promotion could probably not be “sold” to potential donors by means of emotional and explicit persuasive techniques only. For example, for the respective target audiences the factual data on technical characteristics and features of high-tech gaming devices (promoted in Projects 8 and 12) or advanced electronic watch (promoted in Project 4) could carry much higher persuasive value than the most elaborate and emotional *pathos*-based appeals. Second, even the specification-style data presented in the format of brief summaries, or other facts and descriptions related to the projects and objects of promotion, were likely to have been products of careful selection of those data that could have the highest persuasive power.

As noted by Welch in her discussion of postmodern *logos*, “[e]lectric rhetoric is utterly associative, a defining feature of oralism, which has links and transitions that resonate more than they lineate” (1999, p. 106). According to this interpretation of *logos*, laying out a complete argument based on linear logic is not actually essential in modern “electric” rhetoric (that is, rhetoric conveyed by electronic means of data exchange)—it is enough to simply present information that produces the desired associations in the minds of audience members. In the context of crowd funding project descriptions, this means that presenting rhetorically appropriate factual information (for example, about a technological gadget) without accompanying reasoning may actually be the appropriate way of generating the desired audience response. For example, while dealing with technologically savvy target audiences, it may be enough to say that a certain electronic device has a 1980 x 1200 screen resolution, without explaining why exactly such a resolution means better user experience, and such factual information would still represent a highly effective logical appeal. In his paper, Hansen defines *logos* as “proof of the message that is embedded within the message” (in the case of the present study, proof of the need to make crowd funding donations), and provides further definition of *logos* as “...facts and proofs that, from a scientific point of view, lack the bias that comes from subjectivity” (2003, p. 3). This modern interpretation of *logos* provided by both Welch and Hansen as content that may be presented not only in the form of full reasoning, but also as factual data without explicit argument (which is implied, but not explicitly incorporated in the narrative), was used in the present study.

While the development of the appeal subtype classification system itself was a simpler process, the main issue encountered in this study involved making determinations related to the classification of specific text fragments that, for various reasons, either could be potentially attributed to more than one appeal subtype, or required decisions on the part of the researcher as to whether they should be included in the classification at all.

In view of these difficulties, rather than aiming to perform an all-encompassing comparative analysis across all appeal subtypes to rank them by popularity and potential importance, my approach was to adapt the research methodology to the actual findings and focus on the more specific and less ambiguous aspects of the rhetoric found in project descriptions. Instead of addressing the question of how the frequency of use of the rhetorical appeals (by subtype) compares between the project descriptions, my goal was to address and qualitatively analyze specific techniques identified during the study.

### Findings: Specific Rhetoric of Crowd Funding Projects

Generally, all of the project descriptions analyzed incorporated all of the three basic modes of persuasion (appeals). During the coding reviews, I have categorized and characterized the subtypes of Aristotle’s appeals actually used in the project descriptions. These subtypes are listed in Table 2 and discussed in detail below. The information on the occurrence of appeal subtypes across the projects is provided in Table 3.

#### Ethos

**E1—Ethos via a reference to professional expertise, practical experience in the field, and/or prior success in a field same as or similar to the one relevant to the object of promotion**

This subtype of ethical appeals was used in eight out of thirteen projects. An E1 appeal could be as simple and straightforward as the one shown below (example from Project 8):

Look what we’ve accomplished already! [E1]

An example of an E1 appeal from Project 5 shows the use of two different *ethos* appeal subtypes within a single sentence:

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**Table 2. Aristotle's Appeal Types and Subtypes**

Appeal type	Appeal subtype
<i>Ethos</i>	E1— <i>Ethos</i> via a reference to professional expertise, practical experience in the field, and/or prior success in a field same as or similar to the one relevant to the object of promotion
	E2— <i>Ethos</i> via involvement of a notable/famous figure in the field or one who created notable/famous works in the past
	E3— <i>Ethos</i> via third-party recommendations, reviews, and testimonials
<i>Pathos</i>	P1— <i>Pathos</i> via forceful descriptive terms and emotionally charged general text (not belonging to any of the other three subtypes of <i>pathos</i> -based appeals)
	P2— <i>Pathos</i> via references to positive, emotionally rewarding implications of supporting the projects, or to the negative implications of the failure to support the projects
	P3— <i>Pathos</i> via identification with the audience
	P4— <i>Pathos</i> via claims of exclusivity of the objects of promotion or of the opportunity to support the projects
<i>Logos</i>	L1—Factual data on the objects of promotion, their features and functionality
	L2—Information on the practical benefits of making donations, that is, what rewards are included/offered to donors and how the donors will be able to benefit from the objects of promotion
	L3—Information on financial and other terms, where the project owners explain the affordability, discounts, guarantees of refund if the targeted funding amount is not reached, shipping conditions, etc.
	L4—Information on why exactly donations are needed, and how donations will be used by project owners (not necessarily demonstrating benefits to donors)
	L5—General data, such as background information about the object of promotion and/or the project and statements of a problem that needs to be solved (by the object of promotion)

**Table 3. Occurrence of Aristotle's Appeal Subtypes in Project Descriptions**

	Appeal subtypes											
	E1	E2	E3	P1	P2	P3	P4	L1	L2	L3	L4	L5
Project 1	x	x		x	x		x	x		x	x	x
Project 2	x			x	x		x	x	x	x	x	x
Project 3		x	x	x	x			x		x	x	
Project 4	x		x	x	x		x	x	x		x	
Project 5	x		x	x	x		x	x	x	x	x	x
Project 6	x	x		x	x		x	x				x
Project 7			x	x	x		x	x		x	x	x
Project 8	x	x	x	x	x	x	x	x	x			x
Project 9	x	x		x	x	x	x	x	x	x		x
Project 10		x			x		x	x			x	x
Project 11		x		x	x	x	x		x	x	x	x
Project 12	x		x	x	x	x	x	x	x	x	x	x
Project 13		x	x		x		x		x	x	x	x

We have already manufactured and sold incredible, premium dress shirts (check out this article on us by Inc Magazine from February [E3])—3 limited lines of dress shirts and undershirts—so we know the process [E1].

Here, we see a reference to successful prior experience with products similar to those promoted within the crowd funding project, representing appeal subtype E1, combined with a reference to a third-party testimonial about this successful experience (subtype E3).

Project 12 contained another typical example of an E1 appeal which was, at the same time, mixed with emotional content coded as the P2 subtype of *pathos*-based appeals:

The Rift is developed by a team of industry veterans [E1] passionate about changing the way people experience video games forever. [P2] We've tackled projects of similar scope: we've designed and manufactured consumer hardware; we've built well-adopted software development kits for the game industry [E1]; and now we're excited to build a product that can so radically change the way people play their favorite video games. [P2]

It should be noted that appeal E2 (*ethos* via involvement of a notable/famous figure in the field or one who created notable/famous works in the past) was represented by references to the type of high standing in the field that, by definition, usually requires professional expertise normally gained through experience. Therefore, these two *ethos* subtypes—E1 and E2—could be considered to be associated with the same basic type of claim—that of credibility via a high level of professionalism. The difference of subtype E2 was that the high level of professionalism of the famous project owners/participants was also widely recognized by a large number of people.

In those cases where it was possible to make a distinction between the two claims—that of fame/recognition and that of expertise/experience—both subtypes were considered to be present in the same text. Example from Project 1:

There are only a handful of people on earth who know the ancient techniques of Japanese woodblock printmaking, and David is premier

among them. [E2] He's dedicated 30 years to honing his craft. [E1] We're lucky to have his immense talent on board. [E1]

In this case, the first sentence referred to the project owner's standing at the top of his profession and thus was coded as E2. The second and third sentences did not refer to fame or recognition, but strictly to experience and level of ability of the project owner, and therefore were coded as E1.

Generally, it should be noted that either E1 or E2 appeals (or, in four cases, both of these two subtypes) were present in twelve out of thirteen projects under consideration. In view of a certain similarity of E1 and E2 appeals as discussed above, potentially the paramount use of these appeals intended to build the credibility of project owners through arguments related to recognition, professionalism, experience, and/or past successes could point to their notable role as a means of persuasion utilized in successful crowd funding projects.

### **E2—Ethos via involvement of a notable/famous figure in the field or one who created notable/famous works in the past**

The involvement of notable or famous individuals (or those whose work was recognized as such in the past) as project owners, project participants or persons otherwise affiliated with the project owners was referred to in eight out of thirteen projects.

An example (from Project 3) of a “mixed” sentence incorporating both *pathos* and E2 appeals is provided below:

The company brings together a stunning array of dance styles and backgrounds, [P1] featuring an all-star cast of Broadway gypsies from MOVIN' OUT, MEMPHIS, WICKED, COME FLY AWAY, LION KING, IN THE HEIGHTS, SPIDERMAN, BILLY ELLIOT, PROMISES PROMISES, and former members of legendary dance companies Parsons Dance, Momix, Hubbard Street, and Pilobolus [E2].

Perhaps one of the most distinctive uses of E2 appeal can be seen in Project 6, where the project owner was a scriptwriter for Hollywood productions likely to be known to many potential donors:

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From Charlie Kaufman, writer of *Being John Malkovich* and *Eternal Sunshine of the Spotless Mind*, [E2] comes *Anomalisa* his first animated film

A further development of E2 arguments within Project 6 is provided in a list of the creative team members. As we can see below, the *ethos* argument was implemented via links to a popular Web site ([www.imdb.com](http://www.imdb.com)) offering information about notable figures in the film industry:

*Anomalisa* will be produced at Starburns Industries with the creative team...

Exec.Producer Dan Harmon <http://www.imdb.com/name/nm1363595/> [E2]

Exec.Producer Dino Stamatopoulos <http://www.imdb.com/name/nm0821786/> [E2]

Exec.Prod./Director Duke Johnson <http://www.imdb.com/name/nm2122478/> [E2]

Producer Rosa Tran <http://www.imdb.com/name/nm1533266/> [E2]

The owner of Project 9 appears to be a well-known pop musician. However, interestingly enough, in Project 9 we do not see much development of the E2 appeals related to the project owner. We can assume that since Project 9 seems to address the established fan base of the artist, it was considered that there was no need to elaborate on the artist's standing and recognition. The mere mentioning of her name may have been considered to be sufficient. At the same time, Project 9 does briefly use E2 appeals—but only those associated with other project participants and persons associated with the project owner:

....with the help of producer/engineer John Congleton (who's worked with a zillion amazing people including St. Vincent, Modest Mouse, and Xiu Xiu [E2]), we made what I believe is my best f..... album to date [P1].

but best of all I talked some of my musician friends (like DJ spooky, kristin hersh from throwing muses, conrad keely from ...trail of dead, and one of my songwriting HEROES robyn hitchcock) [E2]

The description of Project 13 included a variation of the E2 appeal subtype. Project 13 could probably be considered as one that, unlike the majority of other projects analyzed in this study, mainly represented a charitable solicitation. It involved financing of upgrades to a historical movie theater. The theater was the property, but not the creation, of the project owners. The owners used *ethos*-type rhetoric to emphasize the historic significance of the theater, thus substantiating the importance of the project and the credibility of themselves as people trying to preserve a historic landmark, but they did not attempt to use *ethos*-based appeals directly related to themselves. Examples:

The architects were Betts & Holcomb, but the building's main claim to fame is the participation of the noted Prairie School sculpture and designer Alfonso Iannelli—a collaborator of Frank Lloyd Wrights on Midway Gardens. [E2] ArchiTech Gallery has a detailed bio of him here. [E2]

Gene Autry, Sally Rand and Red Norvo were among the more prominent acts to appear here. [E2]

### E3—Ethos via third-party recommendations, reviews and testimonials

From a certain perspective, subtype E3 may seem to deviate from Aristotle's concept of *ethos*, which is supposed to be related to the credibility of the narrator. Indeed, many of the E3 appeals used in the project descriptions covered testimonials related to the objects of promotion rather than to the project owners or participants themselves.

However, the mechanic of supporting the validity of an argument via references to the opinions of others about the object of argument (supplementing or replacing references to its inherent value) is that of *ethos* and thus deserves to be considered as such. Also, the parties whose testimonials are provided in the project descriptions may be considered to join the project owners in their promotional effort, thus becoming "co-narrators." Therefore, the rhetorical objectives of emphasizing their credibility (*ethos*) are similar to those of building the *ethos* of project owners—supporting the value of the object of promotion via its endorsement by an authoritative party/individual rather than by referring to its inherent value.



Finally, at least in some cases it could be argued that third-party testimonials related to the product created by the narrator serve to reinforce the credibility of the narrator and his/her narrative. Therefore, this particular technique was included in this study as a subtype of *ethos*-based appeals.

The testimonials were provided in project descriptions both as parts of paragraphs covering other topics and as separate lists of quotes and/or sources. Below is an example of a “mixed” sentence (incorporating a *pathos* appeal as well) from Project 3:

Dubbed “smoldering” by the New York Times [E3], Mark Stuart Dance Theatre brings gravity-defying movement and dramatic storytelling [P1] to the stage, screen, and printed page.

In Project 4, we see an example of a more structured and, at the same time, extensive use of testimonials in the form of a separate list including the sources with hyperlinks to full reviews on external Web sites, and quotes from the reviews (the example below shows three out of eight line items on the original list of testimonials):

Daring Fireball—The watch itself is a very cool idea; I’m in as a backer [E3]

Forbes—Proven track record...Incredibly useful product [E3]

Engadget—Allerta intros Pebble smartwatch, inPulse’s attractive younger sibling [E3] ...

Examples very similar to the above can be found in other projects as well.

Project 8 incorporates another variation of the testimonials format, where the sources are referenced via hyperlinks to the reviews/testimonials without direct quotes in the body text:

Engadget! PC World! Kotaku! The Guardian! Joystiq! Forbes! GameSpot! BusinessWeek! The Verge! Wired! IGN! The New York Times! Time! [E3]

Project 13 includes links to videos representing TV coverage of the object of promotion—the historical movie theater:

The Catlow & Boloney’s on ABC-TV’s ‘190 North’ [E3]

Boloney’s & Catlow on WGN-TV’s ‘Chicago’s Best’ [E3]

*Ethos*-based appeals of the E3 subtype appear in seven out of thirteen projects. Mostly used in the form of (in some cases extensive) lists of quotes and sources, the latter including authoritative entities such as Forbes, The New York Times, and others, these appeals seem to represent a notable component of the respective project descriptions and are likely to be a useful means of reinforcing crowd funding solicitation messages.

## Pathos

### P1—Pathos via forceful descriptive terms and emotionally charged general text (not belonging to any of the other three subtypes of pathos-based appeals)

This appeal subtype was represented either by individual instances of use of the respective adjectives and adverbs within sentences, or by text fragments (sentences or parts of sentences) with emotional narrative. This subtype was encountered in the majority of the projects—eleven out of thirteen.

Some examples of text with forceful/emotional descriptive terms are provided below:

stunning designs, lovingly researched and executed (Project 1),

inventive and fast-paced (Project 1),

beautiful hand-made paper (Project 1),

cool battle scenes (Project 2),

action-packed and gravity-defying (Project 3),

stunning array of dance styles and backgrounds (Project 3),

amazing dancers (Project 3),

beautiful downloadable watchfaces (Project 4),

amazing apps (Project 4),

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beautiful... console (Project 8),

The same descriptive terms belonging to the P1 subtype were repeatedly used across multiple projects. These included words such as “amazing,” “beautiful,” and “cool.”

Examples of the second category of text fragments belonging to the P1 appeal subtype did not necessarily include forceful descriptive adjectives or adverbs, but rather were generally emotional in nature:

What is Ukiyo-e Heroes? A ton of fun, that's what. [P1] (Project 1)

Ministry of Supply is launching the Apollo dress shirt, building performance tech into classic style. It's from space, yes outer space. [P1] (Project 5)

Deep down, you know your best gaming memories happened in the living room. [P1] (Project 8)

i think kickstarter and other crowdfunding platforms like this are the BEST way to put out music right now—no label, no rules, no fuss, no muss. [P1] just us, the music, and the art. [P1] (Project 9).

The frequency of these appeals varied greatly across some projects. The variation could be attributed to a combination of (1) personal writing style of the project owners and (2) the nature of the objects of promotion. The largest numbers of occurrences were observed in Project 8 (promoting a new video game console) and Project 9 (promoting the performances by a pop artist)—they were twenty-nine and twenty-seven, respectively. As compared to these two projects, all others involved a far more modest use of P1 rhetoric, ranging between two and ten occurrences per project.

The P1 appeals were absent in two of the thirteen projects (Project 10 and Project 13). Project 10, covering photography, had a relatively short text description with limited use of *pathos*-based appeals. Project 13 involved extensive use of P2 appeals, some of them carrying descriptive elements that could otherwise be classified as P1.

Since the majority of the project descriptions included the P1 rhetoric, this could potentially point to the usefulness of incorporating the emotional narrative techniques in crowd funding project descriptions.

### P2—Pathos via references to positive, emotionally rewarding implications of supporting the projects, or to the negative implications of the failure to support the projects

This appeal subtype was the only one encountered in all of the project descriptions. Considering the fact that the majority of projects in this study belonged to the “arts and entertainment” category, it was probably natural that emotional descriptions of positive and negative implications of providing donor support were relevant to and used in all projects.

*Pathos*-based appeals (P2) are both similar to and different from *logos*-based appeals (L2) described below. Both appeal subtypes involve promises of rewards. However, *pathos*-based appeals (P2) are more emotional in nature both in terms of the descriptions themselves and the rewards offered, while *logos*-based appeals (L2) have more sober tone of descriptions and promise comparatively more “logical” and practical benefits. Below are the examples of both subtypes of appeals found in Project 9:

P2 appeal: if you're a freak for surprises... this is the package for you.

L2 appeal: the COMPACT DISC will be in a ... hard-bound case and include an art booklet.

Examples below are intended to offer a clearer picture of the exact types of P2 rhetoric encountered in the project descriptions.

A somewhat generic P2 statement was made in Project 1:

We've worked hard to give you the coolest designs possible, and we're sure you'll love our main line of giclée prints [P2].

Another P2 statement from Project 3 illustrates P2 appeals found in this and other projects, that is, a general reference to rewards (separately described in detail with breakdown by donation levels):

We've got some amazing rewards for each level of support! [P2] Find the one that excites you the most and jump on the MSDT bandwagon! [P2]

Project 3 also contained the “negative” rhetoric related to the implications of failure to secure financing for the project; this was a mixed case, since it also involved an element explaining the payment terms (subtype L3):

If our entire \$12,000 goal isn’t met before the deadline, no money changes hands [L3] and our workshop and entire project will be in big trouble. [P2] We know you won’t let this happen! [P2]

Subtype P2 appeals could also be related to supporting a cause of a broader scale (one affecting not just the donors, but many others as well) carrying both emotional and practical value, such as avoiding outsourcing and creating jobs in the United States:

Finally, we’re hugely supportive of manufacturing in the United States. [P2] Everything from the fabric to the packaging is made in the USA. [P2] Like recently successful Kickstarter project Flint and Tinder, we’re focused on bringing jobs to America. [P2]

The example from Project 7 below shows appeals more directly related to the object of promotion, but also affecting both donors and others:

With your help, we can all start eating and sharing great food. [P2]

Some of the P2 appeals included both largely emotional and more specific/practical offers of rewards, such as the following example from Project 7:

It is only with your support that we can bring the Nomiku into production. [P2] We’d be honored to have you on board and grow with us. [P2] At the \$299 mark you can get your very own Nomiku! [P2] Do we have some recipes we want to share with you!! [P2]

Here, the goals of (1) bringing the Nomiku into production and (2) “getting on board” and “growing with” the project owners do not seem to offer any practical benefits to donors (and could thus be considered to be mostly emotional), while (3) getting

“your very own Nomiku” and (4) getting recipes could be considered as more “practical” offers.

Technically, the appeal concerning the reward received in exchange for \$299 could be categorized as L2 as well and represents one of the “borderline” cases. However, in this case, the reference to getting “your very own Nomiku” (which is a partly emotional appeal to the sense of ownership expressed through informal language) in combination with the exclamation mark at the end of the sentence and the surrounding *pathos*-containing narrative was considered to justify the use of the P2 code. Likewise, the promise of recipes followed by double exclamation marks and the emotional narrative style of the sentence meet the criteria for *pathos*-based appeals established for this study.

### **P3—Pathos via identification with the audience**

The identification appeal subtype was the rarest one of all, being used in only four out of thirteen projects. Since P3 appeals were considered to be emotional in nature (as those not having any direct relevance to the inherent value or usefulness of the objects of promotion and aimed to produce a *sense*—or emotion—of identification), they were classified as *pathos*. The example below taken from Project 8 shows how the P3 argument is developed in four sentences:

We love console games. [P3] There’s something about a big HD TV and digital surround sound that fills up a living room. [P3] Shooters, platformers, sports games, arcade classics and experimental indie games just feel bigger on a TV screen. [P3] It’s how most of us grew up gaming. [P3]

It should be noted that, in this example, sentences two and three have been assigned P3 code only as part of the P3 argument actually formulated in sentences one and four.

A very informal example of rhetoric of identification can be found in Project 9:

this is a package i dreamed up for people who like to get S\_\_\_ IN THE MAIL, CONSTANTLY. [P3] when i was a teenager i used to love 7”-of-the-month-clubs, punk rock style, and fanzines that would arrive with weird ziploc bags full of crap in them. [P3]

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In Project 11, identification with the audience is accomplished by the author via repeated use of the pronoun “we”:

For too long, we’ve been seduced into believing we should do less. [P3] It’s time to redefine what we’re capable of. [P3] We are all artists now, and the connection economy we’re living in relentlessly rewards those who do work that matters. [P3]

A laconic identification statement (that could probably be used as an advertising slogan) was found in Project 12:

Designed for gamers, by gamers. [P3]

However, because P3 appeals were the rarest among other subtypes, they cannot be considered a mainstream technique of crowd funding project rhetoric, at least within the sample used in this study.

### **P4—Pathos via claims of exclusivity of the objects of promotion or of the opportunity to support the projects**

Similar to P3 appeals, P4 claims of exclusivity were classified as pathos due to their lack of any direct relevance to the inherent value or usefulness of the objects of promotion; their main focus was on generating positive emotional perception of the objects of promotion as something exclusive and/or unique. The exclusivity claims were found in twelve out of thirteen project descriptions. Several examples are provided below.

This example from Project 1 contains a claim of exclusivity related to the entire project and also uses the word “unique,” which was one of the most common adjectives used to support claims of exclusivity:

This is truly a unique art project [P4].

A claim of exclusivity related to the object of promotion is made in Project 4:

Pebble is the first watch built for the 21st century [P4]

In Project 12, exclusivity rhetoric was used by referring to superior characteristics of the object of promotion:

...technical specifications above and beyond other consumer headset available today. [P4]

The example from Project 2 incorporates another type of exclusivity claim—one that is related to a “special offer” (available only to project donors) rather than the main object of promotion:

This magnet is exclusive to the pledge drive, so this is pretty much your only chance to get it. [P4]

The description of Project 7 contains a reference to a discount available to donors only, which is another variation of the “special offer” theme:

This is the last chance [P4] to get the Nomiku with the Kickstarter discount! [L3]

Another example of P4 appeals related to offers available to donors only can be found in Project 9:

I’m also making sure EVERY PRODUCT sold through this kickstarter is unique to this campaign... [P4]

Yet another type of exclusivity claim was found in Project 5, where the text refers to a certain proprietary technology used to create the object of promotion:

The fabric is ready. Through over a dozen iterations / prototypes, we’ve found our secret sauce—the proprietary Apollo blend of fibers [P4].

## **Logos**

### **L1—Factual data on the objects of promotion, their features and functionality**

The “Methodology” section provided a conceptual clarification of the approach to categorizing the *logos*-based appeals adopted for this study. The *logos* appeal subtypes have been identified and classified in accordance with that approach, and the first one of them—L1—deals with facts concerning the object of promotion. These appeals are present in eleven out of thirteen project descriptions and, in those project descriptions where they are missing, they are substituted by other subtypes, such as L5.



A typical example of the L1 subtype from Project 1 is shown below:

The handmade woodblock prints measure 7" x 9", or koban ... size. [L1]

As we can see, the above text represents specification-style factual data about the object of promotion.

In some cases the L1 data was presented in the form of a short list of product specifications, as shown in this example from Project 4 (the example below shows four out of ten similar line items on the original list):

Specifications:

Tegra3 quad-core processor [L1]

1GB RAM [L1]

8GB of internal flash storage [L1]

HDMI connection to the TV, with support for up to 1080p HD [L1] ...

The example above also demonstrates the project coding principle adopted for lists.

Another example from Project 4 deals with product features:

Pebble is a customizable watch. [L1] Download new watchfaces, use sports and fitness apps, get notifications from your phone. [L1]

However, not all of the objects of promotion were “tangible” items that could easily be described using technical data. The mixed example below from Project 3 (also including a *pathos* appeal) is related to a dance-theater performance:

STANDARD TIME is a 90-minute action-packed and gravity-defying [P1] dance-theatre piece exploring social conflict and moral evolution. [L1]

The following example illustrates information about one of the “tangible” items being promoted in Project 9, which is generally related to sponsoring pop star performances:

...hard-bound ART BOOK (similar to the “Who Killed Amanda Palmer” book) which will contain the art, photos, lyrics, behind-the-scenes looks at some of the artist’s creations, and much more [L1]

The content categorized as *logos*/L1 lies at the core of each project description. Lacking in explicitly persuasive strategies, it allows readers to understand what probably amounts to the key aspect of each project—that is, the actual features and characteristics of the objects of promotion.

## **L2—Information on the practical benefits of making donations, that is, what rewards are included/offered to donors and how the donors will be able to benefit from the objects of promotion**

Subtype L2 text is present in eight out of thirteen projects. It should be noted that, in those projects where the L2 text was missing, the same objective (explaining the benefits/rewards offered to donors) was likely to have been met by the associated appeal subtype P2.

The following example from Project 2 provides information about what is included in the offer to potential donors:

...with most pledges, we’ll also be sending out a brand new Roy Greenhilt fridge magnet, matching the ones we’ve made in previous years featuring OOTS characters Belkar, Elan, and Vaarsuvius. [L2]

The abstract from Project 12’s description provides information about what is included in the physical package sent to donors and also describes the prospective benefits of having access to what appears to be an online support and forum platform:

We’re including a copy of DOOM 3 BFG Edition, the first Oculus-ready game, with every Rift dev kit on Kickstarter. [L2]

All of the Rift dev kits include access to the Oculus Developer Center, which provides the SDK, technical support, and serves as a community for Oculus developers. [L2]

Another example from Project 12 illustrates the second subcategory of L2 appeals, which has to do with information about the general benefits that can be derived from acquiring the object of promotion:

We’re also working on out-of-the-box engine integrations for Unreal Engine and Unity, so that

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anyone interested in working with the Rift, including indie developers, can get started right away! [L2]

The following quote from the description of Project 5 discusses the benefits as well:

Apollo uses Phase-change Materials (PCMs) to pull heat away from your body and actually store it in the shirt—like a battery. [L2] This way, when you get back into your AC'ed office, the shirt will release the heat back to you and keep your skin at the temperature it should be at. [L2]

### **L3—Information on financial and other terms, where the project owners explain the affordability, discounts, what happens if the targeted funding amount is not reached, shipping conditions, etc.**

Perhaps representing one of the simpler subtypes, L3 content is related to explaining the basic aspects of donating. Subtype L3 content was found in nine out of thirteen projects. While the basic funding mechanism operates in very much the same way on Kickstarter (projects not reaching the funding goal are cancelled and donors are not charged), the inclusion and format of references to this mechanism appeared to be optional and varied across the project descriptions, thus being a matter of rhetorical choice. Other conditions were strictly project-specific. An example of both can be found in Project 2 (the one with the greatest number of text fragments coded as L3):

For the next 30 days, you'll be able to make pledges to help support this project, ranging from \$1 to whatever you can afford without your spouse/parent/financial advisor slapping you. [L3]

If the final deadline comes and we've reached our goal, then everyone gets charged the amount they pledged at once and we get to work printing and mailing books and magnets and what not. [L3] But if for some reason we don't meet our goal, then the whole thing is called off. [L3] No one gets charged, no fees are applied, everyone just keeps their money. [L3]

Another example from Project 9 demonstrates L3 subtype content written in the less formal style characteristic for the entire project description:

**\*\*ALL SHIPPING COSTS ARE INCLUDED IN EVERY PACKAGE, NO MATTER WHERE YOU LIVE!\*\*** [L3] please bear this in mind when you look at the prices. [L3] it was easier to do things this way, but it also means, in the spirit of art-in-the-mail-democracy, that those of you living in new york might be paying a little bit more to cover the shipping to the people in, say, tibet. [L3]

### **L4—Information on why exactly donations are needed, and how donations will be used by project owners (not necessarily demonstrating benefits to donors)**

Subtype L4 content is encountered in ten out of thirteen project descriptions. To put it simply, L4 content answers the questions of “why do you need this money,” and “where is the money going.” The L4 content, which does not emphasize the direct benefits and rewards offered to donors, may be considered a tool to demonstrate that the solicitation for donations is, indeed, justified, and that they will be used for a “good cause” and not just as a means of personal profit.

The L4 content ranged from more general and short statements to detailed lists. An example of the shorter statements provided as part of text paragraphs is shown below:

The more that is pledged, the more copies can be printed... [L4] (Project 2)

Below is an example from Project 4 of a short itemized list of expenditures to be funded by the donations:

While we're close to entering production, your contribution will help fund:

- Production tooling . [L4]
- Large component order. [L4]
- Global Bluetooth certification. [L4]

An example from a highly detailed list of expenditures can be found in Project 13 (the original list contains a total of nine line items):

What does The Catlow need to “go digital?” [L4]

- A digital projector [L4]
- An upgraded audio system to deliver digitally produced sound. [L4]

- New lenses to display the movie properly on the screen. [L4]
- A server to download and store the digital movie content. [L4] ...

Generally, subtype L4 content serves to demonstrate that donors' money will be spent well.

**L5—General data, such as background information about the object of promotion and/or the project and statements of a problem that needs to be solved (by the object of promotion)**

The L5 content found in eleven out of thirteen project descriptions provides a background for the projects, either in the form of describing the problem (which is claimed to be solved by the object of promotion and/or the project), or in the form of general background information “setting the scene” for the description of the project or the object(s) being promoted.

A typical example of general background information from Project 1 is provided below:

For hundreds of years, Japanese woodblock printmakers worked in a thriving popular art scene. [L5]

The following text, also related to the background of the project, was found in Project 10:

In The Olympic City, we're documenting the successes and failures, the forgotten remnants and ghosts of the Olympic spectacle. [L5] Some former Olympic sites are retrofitted and used in ways that belie their grand beginnings; turned into prisons, housing, malls, gyms, churches. [L5] Others sit unused for decades and become tragic time capsules, examples of misguided planning and broken promises of the benefits that the Games would bring. [L5]

An example of a “problem statement” can be found in Project 2. It is specifically related to the project owner's ability to meet the needs of clients:

Problem is, we ran out of copies sometime in 2010. [L5] That means that many readers (especially those who only discovered the comic in the last two years) have had no opportunity to get it. [L5] Because it's such a long book (288

full color pages, the longest OOTS book yet), the cost of a second print run has been too high for me to raise on my own. [L5]

This mixed example from Project 5 represents “problem—solution” type of rhetoric, where the solution has been coded as L2:

Moisture management: Your body naturally sweats throughout the day. [L5] Using an engineering-driven approach, our unique blend of fibers will wick moisture away from your body, keeping you dry—in the hottest or tensest of situations. [L2]

Generally, the type of L5 content included in the project descriptions may have partly depended on the type of project and the object of promotion. Project 1, belonging to the “Art” category, was less likely to include “problem—solution” type of rhetoric, since the paintings offered as the objects of promotion did not really solve any practical problems. On the other hand, Project 5 belonging to “Fashion” category promoted clothing that could be presented as a solution to existing problems involving personal comfort.

## Conclusion

The classification of rhetorical appeal subtypes presented above was the major finding of this study. Making up most of the body text of project descriptions, the respective content illustrated the predominant rhetorical techniques actually used for the most-funded projects.

All of the thirteen most-funded projects contained all three types of Aristotle's rhetorical appeals (with varying combinations of appeal subtypes), a situation not necessarily common to all kinds of rhetorical discourse. All of the rhetorical content subtypes were found in more than half of the projects considered, with the exception of subtype P3 (identification with the audience).

To summarize the results, a hypothetical profile of a successful crowd funding project description was created, incorporating all of the predominant subtypes—that is, those encountered in more than half of the project descriptions (as mentioned above, the only subtype that failed to meet this criterion was P3). Such a project description will establish the credibility of the project owner or his/her associates by referring to their expertise/experience (subtype E1) and high standing

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in the field (subtype E2). It will contain background information about the project (L5) along with a detailed description of the object of promotion (L1), refer to its unique nature (P4), and show both “practical” (L2) and “emotional” (P2) rewards to be obtained by providing donor support. The narrative will include forceful descriptive terms (P1). The testimonials from authoritative sources about the object of promotion, project, and/or project owner (where available) will be included as well (E3). The financial terms of providing donor support, discounts, shipping conditions, and other details will be clearly explained (L3). The project owner will also state why exactly the donations are needed and what they will be spent for (L4).

While the inclusion of all of these rhetorical elements in a single project description may not necessarily be required—and there was not a single example among the thirteen project descriptions where all of the appeal subtypes were present at the same time—this profile could potentially be treated as a reference for developing crowd funding project descriptions.

The assortment of appeal subtypes identified during this study suggests that, as could probably be expected, writing a “rhetorically perfect” project description may not be enough to attract significant investment in the absence of certain facts or phenomena existing (or not existing) beyond the scope of the rhetorical discourse. While some appeals can literally be “invented” (per Aristotle’s original definition discussed in more detail in the “Background” section) within practically any project description, the effective use of others is largely contingent upon the actual existence of such facts or phenomena in the external environment. An example of the former can be seen in appeal subtype P1, since the use of forceful adjectives and emotional delivery style is largely a matter of discretionary choice. However, appeals such as E3 (dealing with testimonials from authoritative sources) can only be used effectively if such testimonials do, indeed, exist. That is, the project owners could certainly exercise discretion and provide testimonials from their friends and spouses rather than Forbes or New York Times, but it is likely that such testimonials would carry less weight, and, thus, would not qualify as “effective” use of rhetoric.

Therefore, it appears that, in addition to inventive discretionary rhetoric, it may be advisable for project owners to “bring to the table” other beneficial factors, such as experience and/or fame in a related field, solid

third-party testimonials, and, first and foremost—a great product to sell. The textual descriptions of crowd funding projects, and the rhetoric they contain, do not necessarily serve as the dominant factors influencing investors’ decision to contribute funds to a specific project. Nevertheless, the same is likely to be true for many marketing situations considering the concept of “four Ps” of marketing—product, price, promotion, and place (Silverman, 1995). This concept suggests that both proper product and proper promotion are essential elements of a successful marketing strategy, where one element cannot exist without the others. That is, using the very best promotional methods may not be sufficient in the absence of a good product to sell and, likewise, having a great product may not be enough to sell it in the absence of effective promotional techniques.

Furthermore, it seems that not all is lost to those who would prefer to rely on a rhetorically strong project description to secure donor support. The largely discretionary rhetoric (such as *pathos*-based appeals P1, P2, and P4, and *logos*-based appeals L1, L4, and L5) gets the highest scores both in terms of numbers of projects it is included in and in terms of the total numbers of occurrences across all projects. At the same time, the “non-discretionary” rhetoric is mostly limited to *ethos*-based claims—those that have some of the lowest scores along the same criteria. Therefore, this study’s results themselves do not suggest the presence of excessive entry barriers (existing beyond a rhetorically effective project description) that would prevent aspiring project owners from trying themselves in the crowd funding realm. But, even if such barriers did exist in the form of objective circumstances preventing the majority from entering the lucrative business of crowd funding, it appears that having a rhetorically effective project description would be likely to improve the chances of success (as compared to not having one), with all other factors being equal. This simple consideration served as the rationale for the present study.

In sum, the success of crowd funding projects is likely to be determined by several factors, some of which have been considered above, and textual descriptions of the projects represent just one of them. At the same time, in view of the role played by textual descriptions in the online presentations of crowd funding projects, the use of compelling/rhetorically effective argumentation in these descriptions seems to be a necessary (if not sufficient) condition of success. It could be argued that,



while the use of effective rhetoric in a textual description may not necessarily secure the broad support of investors in the absence of other essential components, lack of such rhetoric may potentially weaken the online presentation of a crowd funding project, especially when compared to other project descriptions that employ more persuasive techniques.

This study represents a starting point for further research on rhetoric in crowd funding project descriptions. Future studies may address other rhetorical elements of project descriptions such as images and videos. The future studies may also involve rhetorical analysis of a larger pool of the most successful crowd funding projects and their comparison against the least successful projects (those that did not reach the funding goal and/or received very little funding). Dissimilarities in the use of rhetoric between the two could provide a basis for more definitive conclusions as to the role of rhetorical means of persuasion in the ultimate success of the projects. For example, the presence of a certain rhetorical technique in the majority of most-funded project descriptions in combination with its absence in the majority of the least funded projects could provide a better basis for drawing conclusions on the technique's importance for project success.

Finally, comprehensive studies could be undertaken, perhaps at an inter-disciplinary level, to attempt to identify the relative importance of project descriptions as compared to other factors influencing donors' decisions. The results of this research project could be used to initiate new studies of crowd funding rhetoric and to further develop the knowledge of rhetoric in marketing, where such knowledge could have a high practical value.

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the discipline of technical communication can be approached as a set of practically useful methods and guidelines while fully maintaining its scholarly significance, which was a premise for the present study. Finally, I would like to thank the three unnamed reviewers for their insightful comments.

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# Towards Evidence-Based Writing Decisions: The Knowledge Base Comprehensible Text

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## Abstract

**Purpose:** This paper introduces the Knowledge Base Comprehensible Text, a digital resource containing 702 studies on comprehension and usability of text and discourse, published between 1980 and 2010. The paper explains which publications were included in the knowledge base, how they were collected, how they were annotated and what the interface of the knowledge base looks like.

**Method:** Literature search

**Results:** The paper presents a brief survey of the studies contained in this resource, and discusses the answers of the knowledge base to an exemplary question about the comprehensibility of passives.

**Conclusion:** The knowledge base makes research on comprehension accessible that is relevant for both practitioners and researchers in the field of technical communication. It is a useful tool in a field which, by its very nature, has a strong interdisciplinary orientation and is therefore hard to oversee.

**Keywords:** empirical evidence, knowledge base, writing, literature search, comprehension, readability, usability

## Practitioner's Takeaway

- Practitioners and students can easily find the results of studies into comprehension effects of message features and discourse genres.
- Professionals can validate practical writing advice by investigating results of empirical studies into related text features—such as the use of passive voice—and thus strengthen their writing and consultancy.
- Students and academics learn to oversee the interdisciplinary field of comprehension research in specific domains, such as health or education, and genres like manuals, forms or patient information leaflets.
- Students in communication studies learn how to perform a systematic and extensive literature search.

## Knowledge Base Comprehensible Text

### Introduction

Comprehensible language—or rather the lack of it—is one of the top 10 bottlenecks for organizations in serving clients and citizens. Banks, hospitals, national and local authorities, and numerous other organizations work at improving the comprehensibility of their information. But what makes a document comprehensible and usable? Researchers have published hundreds of studies to answer that question in different disciplines, such as psychology, psycholinguistics, discourse studies, and document design. Unfortunately, the gap between academic research and everyday practice will keep growing as this body of research expands and practitioners experience stronger time constraints. Expert practitioners have more than once pointed out that they would like to see a firm research base for their work. Palmer and Killingsworth (2002), for instance, report that experts in document design feel a need for more time to study the research literature. A well designed knowledge base could supply a crucial component of the ‘technical communication body of knowledge’ envisaged by Coppola (2010).

In 2007, The Society for Technical Communication started to develop a *Technical Communication Body of Knowledge* (TCBOK) to help professionals find the knowledge they need. The TCBOK portal offers a large body of knowledge on academic programs in technical communication, marketing tools, career paths, and a research section with an area that contains overviews of research on particular topics, such as *Style*, *Understanding* and *Memory*. A closer view reveals that the knowledge base is limited in reviewing relevant research. An annotated bibliography in that section offers six papers on readability formulae, segmentation, and plain language. Although helpful for those who begin to orientate in that field, this portal shows that technical writers and students cannot rely on this bibliography when they want to oversee the field. In this paper we present a *Knowledge Base for Comprehensible Text* that makes a large body of research accessible to practitioners, students, and academics. This knowledge base is complementary to TCBOK: it does not inform practitioners on all practical and professional issues like TCBOK does, but it focuses on the crucial question what makes documents comprehensible.

Since the 1980s, text comprehension has become an interdisciplinary field in which discourse

researchers cooperate with cognitive or educational psychologists and human factors specialists. Apart from experimental comprehension research, applied researchers have contributed studies on comprehension in fields such as health communication and government-citizen communication. As a result, comprehensibility research, once begun in the readability paradigm, diversified considerably. It is already hard to list the core journals in the field; a gamut of text features has been investigated, defined differently across various studies; many different measures have been used to gauge comprehension; many studies are traditional experiments manipulating just one or two factors, while revision studies compare original documents with documents that have been modified in many ways.

The lack of transparency of the field is felt by practitioners and students in language and communication. Even after taking a course on text design and comprehension, bachelor students have trouble locating empirical comprehension studies for a given text genre or text feature, in spite of the fact that powerful search engines abound. Those search engines can only be started by entering appropriate search terms. Finding the right terms requires prior knowledge of the research landscape. Both students and practitioners experience a lack of prior knowledge to efficiently use these search engines. This Knowledge Base has been built for both groups.

This paper introduces the Knowledge Base Comprehensible Text ([www.comprehensibletext.com](http://www.comprehensibletext.com)) and discusses the selection of studies and the annotation procedure. We provide an overview of the contents of the knowledge base and report on an exemplary excursion. For this excursion we were inspired by the personas introduced in TCBOK. We created the following persona.

Kate Patel, a technical writer with a long-standing career, had a discussion with her contractor about a manual she just produced. Some sentences in the manual used passive voice, a deliberate stylistic choice of Kate. The contractor told her that all sentences had to be written in the active voice. As a general rule, Kate agreed, but not for these particular sentences. The debate could not be solved. Kate starts searching for empirical evidence sustaining her claim that under specific conditions passive voice should be preferred, or at least does not harm.



Before we present the results of her query, we will first discuss the design of the knowledge base and the criteria we used for the selection of studies that can be found in it.

## The Design of the Knowledge Base

The development of the knowledge base started with formulating design specifications. The following points of departure were chosen for the design process.

- *General purpose of the knowledge base:* The knowledge base provides systematic information on the studies of the past three decennia concerning message features affecting comprehensibility. The studies must be accessible in terms of text genres, message features, comprehension measures and their combinations.
- *Language:* We produced both English and Dutch versions of the knowledge base.
- *Target groups:* The knowledge base aims both at academic user groups (students, teachers, researchers) and at professional user groups (communication professionals, communication managers).
- *Prior knowledge:* The knowledge base requires some methodological and linguistic knowledge. Hence we use terms like *type-token ratio*. A glossary is provided for novice users.
- *Search routes:* There is a fast search option accessible from the home page and an 'advanced search' option one click further away. The fast search option offers genre group, feature group and comprehension measure. Advanced search offers more detailed categorizations of genres and features, as well as

additional information (for example, on participants and stimuli). Both the fast and advanced search facilities offer a *refine search* option, in which further fields can be used to narrow down the results.

- *Closed and open fields:* Most search fields provide dropdown boxes with clickable items, but in the author, title and abstract fields, search strings can be entered freely.
- *Combining search terms:* When combining terms from different fields, only 'AND-combinations' are facilitated. For instance, combining 'word difficulty' with 'health' gives studies of word complexity in health texts. In contrast, the system considers combinations of terms from the same field as 'OR' combinations. Hence combining 'word difficulty' with 'text lay-out' yields studies on word difficulty, lay-out, or both.
- *Accessibility of the studies:* A Google Scholar link is presented for studies that are digitally available. The actual access to the study may of course require a subscription, and hence depends on the work station of the user.

Figure 1 shows the final version of the home page, providing introductory text and the fast search option.

Suppose, our persona Kate focuses on the second option *Feature* and selects *Sentence level features* because she wants to find out what research tells us about the use of passive voice. Figure 2 shows how the results look like.



Figure 1. Homepage of the Knowledge Base Web Site



Figure 2. The First Three Results Yielded for the Sentence Level Feature in a List of 93 Results

## Knowledge Base Comprehensible Text

This search yields 93 hits, the first two of which are German and Dutch studies. In the right upper corner, the user may refine the search or create a list of references in a Word file. The last button enables Kate to reorder the list. The *refine* option leads to the advanced search screen, which offers 16 search features: author(s), title, abstract, year of publication, participant age, genre group, genre, feature group, feature, writing advice, comprehension measures, reading process measures, non-textual independent variables, control variables, modality (spoken, written,

digital) and type of stimuli. Combining these terms opens up endless possibilities.

Our persona Kate will decide to refine her search, choosing for the genre of *manuals* and the sentence feature *passives* (Figure 3).

This decision to refine the list of results leads to a disappointing “no results.” Probably no research has been done on effects of passive voice in manuals. Thus, Kate decides to look for studies on passives without any genre restriction, which leads to a list of 15 studies (Figure 4).

Clicking on a result produces the data for her query. First, the bibliographical data, the Google Scholar

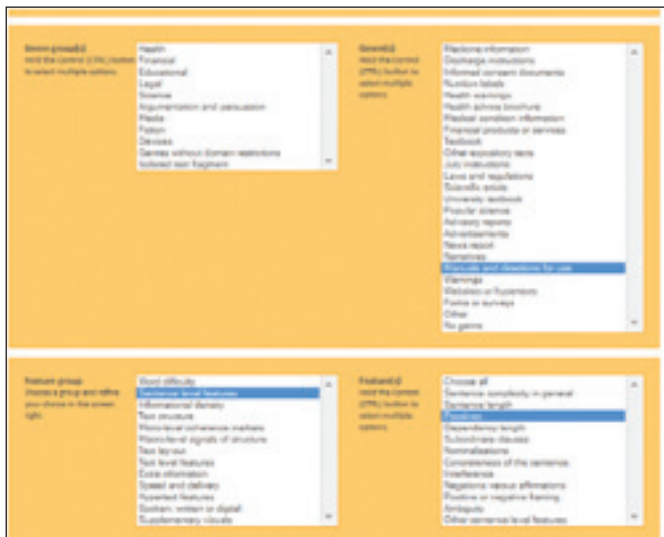


Figure 3. Refining the List of Results for Manuals and Passives



Figure 4. The List of 15 Results for Studies on Passive Voice with no Genre Restriction



Figure 5. Presentation of Bibliographical Data and Abstract



Figure 6. Presentation of Details about the Design of the Study, the Results and the Advice

link and the abstract are presented (Figure 5). More information about this paper is presented in Figure 6, such as the advice for which this study is relevant and its conclusions (based on the final section of the article). Finally, further information is presented about the student participants in this study, the kind of document manipulation (isolated fragments) and other, non-textual variables. Kate will notice that the first study in the list advises to avoid passive voice. She probably will look at the other 14 results and find out that some studies report other findings.

This is how the knowledge base works. Now we move to the principles behind the set-up of the Knowledge Base: How did we select the studies? And how did we annotate every study? These questions will be answered in the next two sections. Finally, we will return to Kate and discuss the results of her case study on passive voice.

## Selection Criteria

In our literature searches, we aimed to find studies on the effects of textual and visual features on comprehension. The textual features included word and sentence level issues, information order and headings, but also layout issues like the continuous or bulleted presentation of lists and the length of lines. The overwhelming majority of the papers turned out to be reports of experimental studies. But we also found studies in which authentic texts had been revised and tested for comprehension. Studies on visual features focused on comprehension effects of tables, diagrams, graphs, and illustrations.

In our selection, we did not evaluate the quality of studies, as we wanted to survey the field in the broadest possible terms; hence only thematic requirements were used to discard studies. We excluded papers that did not test different message versions on comprehension, such as studies into reading comprehension skills, studies that diagnose and revise but did not test the revisions, studies that investigated information preferences of participants, or studies of reading strategies or reading speed. Some studies using substantial content manipulations were excluded, but studies focusing on the effect of inserting short clarifications have been included.

Studies of the effects of reader variables (for example, age, prior knowledge) have only been

included when these variables were crossed with message variables. Studies have only been included when they used documents addressing non-expert audiences, but educational texts addressing novice students (age above twelve) were accepted. Research with younger readers often focuses on the development of reading comprehension skills, a topic that is less central to our purposes. We only included studies with participants using the documents' language as their first language. Finally, we excluded studies with participants suffering from language or reading disorders such as aphasia or dyslexia.

We included studies published in journals, conference proceedings or books from 1980 on. Although there is some arbitrariness to this starting moment, our impression is that most of the comprehension research relevant to text design has been done from 1980 on. The choice for this time frame excludes the classic readability studies by Flesch, Bormut, and others, but these studies concentrate on predictive validity and not on text improvement. The included studies are peer-reviewed publications in English, French, German, Spanish, or Dutch journals or books. However, the overwhelming majority of studies are in English. This is not just because our searches used English terms. In fact, English search terms do yield non-English hits, and even more so than search terms in the original language. For instance, *readability*, when entered in the Scopus search Engine, yields 4648 hits, of which 163 are in German and 87 in French. In contrast, the term *Verständlichkeit* provides only 58 German studies, and *Lesbarkeit* 23. Finally, review articles were not included, although they were inspected for relevant references.

We note that the knowledge base takes the study as the basic entity. This means that articles reporting two studies yield two knowledge base entries, provided that both studies meet our requirements. And this means that a study reported twice in different publications is a single entity. For instance, we included Murray (1997), but discarded Murray (1995) which reports the same study.

No matter how carefully requirements are defined, some cases will fall in a grey area. For instance, studies by McNamara and colleagues of educational text often use powerful and complex manipulations. O'Reilly and McNamara (2007) extend a text from 650 to 901 words by replacing pronouns by noun phrases, inserting connectives and signaling phrases and adding



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lexical material to increase conceptual overlap between sentences. Moreover, they insert topic sentences and 'descriptive elaborations.' These last interventions appear to alter message content, while the first group can be seen as signaling the referential and relational coherence. Because of its importance for issues of readability, this work was included in the database. We noted the complexity of the intervention in an annotation. Another example is the work on 'seductive details' by Schraw (1998) and others. These details add content, but content irrelevant to the main story line. Finally, the work by Sadoski and colleagues on text concreteness (for example, Sadoski et al., 2000) uses different texts instead of text versions, which reduces its relevance for document design somewhat, since differences in concreteness often reflect differences in text topic, not style. This work was also included in the database, because it compares concreteness effects with the effects of traditional text complexity features. Again, an annotation is included on the issue of the comparison of texts with varied content.

### Searching Studies on Comprehension

We started using eight search engines, comparing the results for identical search term combinations and checking whether certain classical papers turn up in the output. Five engines were selected:

- *Scopus* provides high quality results, covers many sources, and is easy to use;
- *Google Scholar* gives enormous numbers of results, but enables the use of very extensive search terms combinations to zoom in on relevant work;
- *PsycINFO* appears to yield results that do not turn up in the other engines;
- *LLBA* provides high quality results in the domain of linguistics and psychological studies into language behavior;
- *Web of Science* is one of the dominant databases in the domain of social sciences, indexing also journals in the field of technical communication.

We started out with general search terms and combinations such as 'text AND comprehension'. All engines returned large numbers of results, but few relevant studies. Adding terms to the search combinations improved the quality of results. In order

to build these expanding search strings in a principled way, we constructed a general string syntax composed by three classes of search terms:

- Terms referring to message features (103 features were listed);
- Terms referring to comprehension effects (18 effect types were listed);
- Terms referring to text genres (for example, *patient leaflets*) and/or text features (*word, sentence, text*) (32 genres and 13 text features were listed).

Our search combinations always had two of these types of terms. Our research team used all possible combinations systematically in all five selected search engines. For instance, one of our search combinations was *language comprehension* (effect term) *AND word familiarity* (text feature), which yielded 39 results in Scopus. To manage the length of results lists, we added new terms to the combinations in case of more than 200 results. For instance, *text AND comprehension* gives 6.651 results in Scopus. Adding *experiment* reduces the number to 983; and adding the text genre *news* reduces the list size to 11. Examples of term combinations include:

- word difficulty AND text comprehension,
- passives AND reading comprehension,
- comprehension effect AND word repetition AND news reports,
- understanding AND legal text AND improve, comprehension history text AND experiment.

Apart from these searches, a number of journals and proceedings have been searched manually. More importantly, the hits have been used to produce further candidate studies by checking their references and by checking studies referencing them. Our searches often resulted in considerable numbers of hits that had to be scanned using the criteria we discussed above. For instance, one of our combinations, *Readability AND "Informed consent information"* yields 85 studies published after 1979 in Scopus, five of which qualify for the knowledge base.

Bjørn, E., Rossel, P., & Holm, S. (1999). Can the written information to research subjects be improved? An empirical study. *Journal of Medical Ethics*, 25(3), 263-267.



- Kang et al. (2009). Informed consent recall and comprehension in orthodontics: Traditional vs. improved readability and processability methods. *American Journal of Orthodontics and Dentofacial Orthopedics*, 136(4), 488.e1-488.e13.
- Knapp, P., Raynor, D. K., Silcock, J., & Parkinson, B. (2009). Performance-based readability testing of participant information for a phase 3 IVF trial. *Trials* 10, art. no. 1745, 79.
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- Tait, A. R., Voepel-Lewis, T., Malviya, S., & Philipson, S. J. (2005). Improving the readability and processability of a pediatric informed consent document: Effects on parents' understanding. *Archives of Pediatrics Adolescent Medicine*, 159(4), 347-352.

Three examples of rejected studies are presented below.

- |  |   |
|--|---|
| Barrio-Cantalejo, I. M. et al. (2009). Cross-cultural adaptation and validation of the picker patient experience questionnaire-15 for use in the Spanish population. | This study deals with adapting a patient satisfaction questionnaire.                  |
| Kellen, E. et al. (2010). Carefully weighing the advantages and disadvantages of the screening program for breast cancer in Flanders.                                | This is a medical study on the effectivity of screening programs.                     |
| Ménoni, V. et al. (2010). The readability of information and consent forms in clinical research in France.   | This study applies a readability formula, without investigating actual comprehension. |

## Annotation

Having selected the studies, we needed to annotate them. Our aim was to provide the user with multiple routes of access to a study. Besides being findable on the traditional bibliographical

parameters such as author and title, we aimed at a number of menus in which users may click on features we expect to be relevant for both researchers and practitioners. For instance, a question to be answered might be: what studies have been done on the role of text structure for the comprehension of patient information leaflets? We developed the following annotation model.

## Basic Information

The model starts with general bibliographic data: author, year of publication, title, and source information. The results pages also provide a Google Scholar icon, so that users authorized to access the publication are able to view it immediately. For articles reporting several studies, a study number is provided.

## Abstract and Conclusion

The results page provides a copy of the abstract (in the original language). Moreover, there is a field providing important conclusions, drawn from the abstract or from the discussion in the body text of the paper.

## Domain and Genre

We categorized the domain and the genres for the investigated documents. The domain is the societal realm in which the text occurs. Genres are categories of conventional documents.

**Table 1. Domains and Example Genres**

Domain	Example genre(s)
Health	Medicine information, discharge instruction
Financial	Financial product information
Educational (schools)	Textbook
Legal	Jury instruction
Science (incl. university education)	Research article, popular science article
Media	News report
Fiction	Narrative
Devices	Manual, warning

In Table 1, we can see that some genre groups may show overlap. For instance, patient information about an asthma inhaler may be regarded as

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medicine information, but it may also be categorized as a manual for a device. In such cases, the topic dimension was chosen as the primary criterion. Similarly, mortgage conditions have been classified as financial texts and not as legal texts, and popular science texts about health topics have been annotated as health texts and not as science texts. Furthermore, not all genres are restricted to one domain. For instance, advisory reports, advertisements, forms and questionnaires can occur freely in every domain. This is why we also categorized genres without domain restrictions. Finally, we need to accommodate the fact that a considerable number of psycholinguistic studies use artificial, ‘non-genre’ texts, or ‘textoids’ as they have been called: isolated sentences or text fragments, that are purely constructed for experimental purposes and do not serve any ‘natural’ function.

### Message Features and Feature Groups

The knowledge base uses thirteen feature groups, listed and illustrated in Table 2. These were the features we found in our collection of research papers. Some features may look rather technical, like *type token ratio* or *propositional density*. The type-token ratio is utilized in language studies to evaluate the lexical diversity in a document. Propositional density refers to the number of ideas in a piece of discourse relative to the number

of words. Information density is often used as an indication of complexity.

Besides messages features, the studies have also been annotated in terms of well-known writing advices, in order to enhance its accessibility to practitioners. Examples of such advice are ‘explain difficult words’ and ‘use list formats for enumerations.’ The advice list is shorter than the message feature list, as some features have been studied but not yet used in advices.

### Comprehension Measures and Reading Process Measures

Comprehension measures are the questions and assignments participants in the studies respond to in order to demonstrate understanding, such as multiple choice questions or cloze tests. Most of these categories were clear-cut, with the exception of ‘task performance.’ This category refers to studies measuring the accuracy of carrying out text instructions, but also to application tasks in which participants used text information in solving scenario questions.

### Stimuli and Type of Manipulation

We coded the modality of the stimulus (spoken, written, and digital) and its size: complete texts may be studied, sentences (for instance in an experiment on active and passive constructions), isolated words (in a

**Table 2. Feature Group List and Example Message Features**

Feature group	Example feature(s)
<i>Word difficulty</i>	Word frequency, verbal versus numerical information
<i>Sentence level features</i>	Sentence length, passives
<i>Informational density</i>	Type-token ratio, propositional density
<i>Text structure</i>	Order of text components, distance between referents
<i>Micro-level coherence markers</i>	Co-referential expressions, connectives
<i>Macro-level structure signals</i>	Organizers, headings
<i>Text layout</i>	Line length, segmentation
<i>Text level features</i>	Text concreteness, text perspective
<i>Extra information</i>	Clarifications of words, examples
<i>Speed and delivery</i>	Prosody or stress, presentation rate
<i>Hypertext features</i>	Linear versus hypertextual presentation, link labels
<i>Spoken, written or digital</i>	Written versus audio, paper versus screen
<i>Supplementary visuals</i>	Tables, diagrams, graphs, illustrations, animations, icons

word frequency study), or separate visuals. To enable an assessment of the generalizability of the results, we annotated the number of stimuli used in the study. We also noted whether the stimuli (or examples of the stimuli) are given in the report, which is unfortunately not always the case.

Finally, intervention complexity is coded. In case of complex interventions, several message features are varied simultaneously, which hinders causal explanations for the results. Complex intervention studies may be very important from a practical point of view and may encourage further research, but they are obviously limited in terms of both internal validity and generalizability.

### Participant Information

The age, educational level, and number of participants are noted. This information is useful to enable *prima facie* assessments on generalizability.

### Control Variables and Non-Textual Independent Variables

A study's internal validity can be considerably enhanced when potential confounding variables are controlled for, such as participants' abilities or reading task features. Hence we note such control or moderator variables. When textual variables have been crossed with non-textual independent variables, the robustness of the message feature effects can be better assessed, as well as the potential interactions between message effects and participant or task characteristics.

## Results: An Overview of the Studies in the Knowledge Base

One of the interesting results of all these searches and annotations is that it uncovers the main interests of researchers into comprehension studies. What genres do they focus on? And which text features are studied most intensively? Currently, the knowledge base contains 703 studies, drawn from 479 publications. Best represented are the genre groups science (168), health (132) and education (120). Science texts or popular science texts are often used in experiments with students as participants. The educational texts are usually taken from textbooks used in secondary education. The most common health text genre is

medicine information, but in this domain we also find informed consent documents and health warnings. Strikingly, the financial and legal domains are poorly represented with six and fifteen comprehension studies respectively.

We can also see which features of communication products are most popular in comprehension research. Table 3 presents a list of the message feature groups and the number of studies devoted to different features.

**Table 3. Number of Studies Using Specific Message Features**

Visuals	205
Macro-level signals of structure	153
Text structure	135
Extra information	100
Sentence level features	93
Micro-level coherence markers	87
Word difficulty	86
Text-level features	68
Text lay-out	59
Written, spoken or digital	37
Hypertext features	21
Speed and delivery	13
Informational density	11

Within the visual group, illustrations are the most frequently researched genre with 97 studies. Other visual genres in the knowledge base are diagrams (48), animations (36), icons and pictograms (26), graphs (21) and tables (21). Many of the illustration studies are conducted in the educational domain and some of them in the health domain and the domain of operating devices.

Of the textual feature groups, most attention goes to macro-level signals, especially headings and organizers, and to text structure (especially the order of text components).

As for the comprehension measures, multiple-choice and open comprehension questions are most frequently used. Other measures are free recall, recognition, task performance and cued recall. Summarizing and searching tasks are less popular, and the same applies to cloze tests (Table 4).

## Knowledge Base Comprehensible Text

**Table 4. Number of Studies Using Specific Comprehension Measures**

Multiple choice questions	225
Open questions	214
Free recall	157
Recognition of the stimulus or related material	114
Task performance	78
Cued recall	76
Summarizing and paraphrasing	38
Searching information	19
Cloze tests	18

All this concerns measures of comprehension products, that is, mental representations of text information. The knowledge base also provides online (process) measures, if applicable. The most popular processing measures are reading time (219 studies) and response time (135). Another option is analyzing the reading path through the text (38). Sometimes this concerns eye movement measures such as the number of regressions to earlier material, but more often macro-level path phenomena are at issue, such as the navigation trail through a Web site or switching between text and illustrations.

Finally, the knowledge base informs us on another factor that crucially affects comprehension: the readers that have to do the work. Table 5 shows that in 190 studies reader variables have been taken into account; prior knowledge seems to be the most interesting factor.

**Table 5. Number of Studies Using Specific Reader Variables**

Prior knowledge	82
Age	52
Reading ability	45
Working memory	33
Level of education	15
Sex	8
Intelligence	8
Learning style	5

### Case Study: Comprehending Active and Passive Sentences

Let us now probe a little further and try to answer the scenario question of our persona Kate Patel, who had a debate with her contractor about passive voice in manuals. What evidence may Kate find in the Knowledge Base sustaining her claim that the passive voice may be used?

Searching on this message feature (which appears when the group of the 'sentence level features' is selected), we find 15 studies published after 1980. Most studies presented isolated sentences to participants. Kate understands that no manual fragments have been used in these studies. Of the more recent studies, five studies use a complex intervention: Handel *et al.* (2001), Kang *et al.* (2009), Leroy *et al.* (2010), Ulijn and Strother (1990), and Wenger and Spyridakis (1993). For instance, Ulijn and Strother (1990) simplified the construction of 10 sentences; in two of them they manipulated passives along with other features, and in one of them they only manipulated the passive. In their comprehension data, all sentences are aggregated. And Kang *et al.* (2009) combined the passive manipulation with lexical and visual changes. These studies are hard to interpret in terms of effects of passive voice. The remaining studies are surveyed in Table 6.

Bostian (1983) and Lenzner *et al.* (2010) are the only studies to date that investigate passive manipulations in authentic texts. Unfortunately, Bostian's study is not well-designed, as there is an alternative explanation for the slower reading of passive sentences: the author mentions that they were longer than the active sentences (15.7 versus 13.5 words). The interesting feature of the Lenzner *et al.* study is its process measure: the time needed to answer the question. The passive manipulation in his study only concerned two questions.

The rest of the studies are psycholinguistic experiments using isolated sentences as stimuli. Carrithers (1989) uses reading time as comprehension measure. Although it is assumed that passive sentences are more complex than their active counterparts, his experiment does not show differences in reading times, except when the passive sentences contain ergative verbs such as *amaze*. The work of Ferreira, Street and Dabrowska uses direct comprehension measures such as question answering or picture matching. They find that passive sentences are more often misunderstood, but this applies specifically to less-educated participants reading



implausible sentences. Street and Dabrowska (2010) further show that a training in reading passive sentences for those participants is fairly effective, which indicates that the problem has to do with a lack of experience with the passive construction and not with working memory.

Our persona Kate may conclude that the only empirical evidence for the difficulty of passive voice is related to a less-educated audience. If her manual is produced for higher educated readers, their comprehension may not suffer from passive sentences. She could have found this information in a university library spending some hours using different search engines, thinking about combinations of terms and scanning hundreds of titles leading to these papers. But using the knowledge base at home, she can learn

about the results of these studies without consulting the journals and without having to read complicated methods and results sections.

As a professional writer, she will not change her writing strategy to describe actions in the active voice. She will present specific information—like negative consequences of actions for the reader—in passive voice, as she has been doing for years. Surprisingly, the knowledge base does not show empirical evidence for such expert knowledge about the effective use of passive voice, like presented on the Web site [www.grammar-monster.com](http://www.grammar-monster.com). In that way, the knowledge base is useful for both practitioners and researchers: it helps to find empirical evidence on issues concerning comprehension and it sheds light on issues that need more or new research.

**Table 6. Short Descriptions of Studies with Simple Passive Manipulations**

Reference	Type of stimulus	Comprehension measure(s)	Results; comments
Bostian (1983)	Texts; news reports	Reading time (the number of sentences read in a pre-specified time frame); open comprehension questions for explicit information	The passive text was read somewhat slower; no difference in question answering
Carrithers (1989)	Isolated sentences	Word-by-word reading times	Passive sentences containing 'normal' verbs are read faster; but passive sentences containing 'ergative' verbs such as <i>amaze</i> are read slower
Dabrowska and Street (2006)	Isolated sentences	Readers were asked for the actor in the sentence event	Highly educated participants perform at the optimal level (ceiling level). Less-educated participants perform worse in passive than in active sentences, provided that the sentences are about implausible events
Ferreira (2003). Experiment 1	Isolated sentences	Readers were asked for the actor in the sentence event	Participants perform worse in passive than in active sentences, provided that the sentences are about implausible events
Ferreira (2003). Experiment 2	Isolated sentences	Readers were asked for the actor in the sentence event	Participants perform worse in passive sentences than in cleft sentences about implausible events
Lenzner et al. (2010)	Survey questions	Time spent in answering the question; number of 'uncommitted' answers	For two questions, the passive variant was answered slower than the active variant; the answers themselves did not differ
Street and Dabrowska (2010). Experiment 1	Isolated sentences	Choosing a picture corresponding to the sentence	Less-educated participants perform worse in passive than in active sentences
Street & Dabrowska (2010). Experiment 2	Isolated sentences	Choosing a picture corresponding to the sentence	After training, less-educated speakers perform at ceiling level

## Knowledge Base Comprehensible Text

### Further Work

This knowledge base is the first digital database specifically dedicated to research on comprehensible language and text design. The first release of such a resource certainly has its limitations. For one thing, our impression is that book publications are underrepresented, as many search engines seem to concentrate on journal publications. And in the short time frame for the project, we cannot even be sure to have covered all relevant journal publications. For instance, we suspect that there are much more studies on text presentation (typography and lay-out) than we have located so far. Hence we invite all users to send in suggestions about studies that we have missed.

The current version of the knowledge base contains studies up to 2010. The database will be updated in 2014. We hope to secure further funding for following updates. More importantly, we would welcome international cooperation on the further development of the resource, both in terms of its content and on its usability. We certainly do not pretend that our research base is exhaustive for the technical communication body of knowledge. The Technical Communication Body of Knowledge (TCBOK) demonstrates how broad a knowledge base for the profession can be, ranging from academic programs to marketing tools and career paths. However, we do believe the *Knowledge Base Comprehensible Text* presents a serious attempt to outline the empirical research on a crucial aspect of the profession: producing comprehensible information.

### Acknowledgment

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# “Death of the Technical Communicator”— Current Issues and Future Visions for our Field

Jenni Virtaluoto

## Abstract

**Purpose:** The aim of this paper is to explore the current state of technical communication in Finland, with a look into the future of the field as practitioners see it. This article is part of a larger study investigating technical communication through activity theory.

**Method:** The study utilizes autoethnographic interview data to explore and analyze some of the issues technical communicators are currently facing, and how these issues affect their expectations for the future. The literature of the field is used to further illustrate the points made.

**Results:** User-centeredness is widely recognized as one of the main quality factors in technical communication, but the current work processes of the field do not allow technical communicators access to users or user data. The interviewees are not satisfied with their current work conditions and fear for the future of the field.

**Conclusion:** It is discovered that while we are currently facing serious problems, there is still a need for user advocates in the product development process. A new model for technical communication is needed in order for the field to survive.

**Keywords:** technical communication, autoethnography, activity theory

## Practitioner's Takeaway

- Technical communication has been a main career option for English majors in Finland, including the author of this article, but the current restructuring of the IT sector and the offshoring and outsourcing trends are making the future of the field seem uncertain.
- User-centeredness is widely recognized as one of the main quality factors in technical communication, but the current work processes of the field do not allow technical communicators access to users or user data.
- A new model for technical communication is required while the profession still exists in Finland. This article is part of a larger study exploring the possibility of creating such a model using activity theory.



## Introduction

I have been a technical communicator since 1998. Around this time the IT industry began booming in Finland, with Nokia as the flagship company. Suddenly, there was a new job market for English majors such as myself: we may not have known exactly what technical writing was, but we knew we had the language skills to do it. A lot of us fell into the industry quite by accident—as one of the interviewees in this study put it, “I didn’t want to become an English teacher, so this was my getaway.” Others had an interest in technology and wanted to be part of the growing IT sector. This article explores the field of technical communication in Finland as it is seen by the eight Finnish technical communicators I have interviewed. The field has had its ups and downs, with the current challenges being “more daunting than any we’ve confronted before” (Hayhoe, 2005, p. 265).

Although the general tone of this article is somewhat critical, I am fully aware that even today, there are technical communicators who are satisfied with their work—in fact, one of them is an interviewee in this study. I too have had wonderful experiences in the field of technical communication, been able to use my full skill set and grow as a professional of user advocacy. However, the industry today seems focused on technical communication as a commodity, not on technical communication as an art or a field of expertise. It is seen as a drain on resources rather than a value-adding aspect of product development or a form of customer support. Technical communication is not seen as part of the product, which is why it is so easy to subcontract or offshore it. According to the interview data in this paper, the technical communicator is very far removed from the users of the products being documented, and one reason for this is the current subcontracting and offshoring trend. These issues are further explored in sections 2 and 3. Section 4 focuses on the future of technical communication in Finland as the interviewees see it.

## Methods

My professional background influenced my choice of research method in this study. Autoethnography—the “ethnography of one’s own group” (Reed-Danahay, 1997, p. 2) anchors the researcher within the phenomenon he/she is investigating. This approach

may offer the researcher easier access to information than an “outsider” would have. On the other hand, being an “insider” naturally means that the researcher must put special emphasis on the objectiveness of the study. The purpose of the interview data in this paper is to offer an objective and multifaceted picture of the issues discussed. My own experiences and the interview data will be augmented with previous research in the field to provide a fuller account of the issues technical communicators are facing; in autoethnography, analytic insights are provided through recounting the researcher’s own experiences as well as those of others (Anderson, 2006, p. 384). Although the researcher is visible in the text, the aim is not to generalize one person’s experiences over a complex whole (Anderson, 2006, p. 386). I have only been an in-house technical communicator, which is bound to influence my understanding of the field—none of the interviewees had in-house experience only. In addition, I have only worked with business software and hardware while many of the interviewees had experience of documenting customer products, too. This adds diversity to the data of this paper.

Anderson (2006, p. 375), introduced the term *analytic autoethnography* to refer to ethnographic work where the researcher is a full member of the group or setting being studied. According to Anderson, the five key elements of analytic autoethnography are as follows:

1. complete member researcher (CMR) status
2. analytic reflexivity
3. narrative visibility of the researcher’s self
4. dialogue with informants beyond the self
5. commitment to theoretical analysis (Anderson 2006, p. 378).

My background as a technical communicator grants me CMR status; while my ‘self’ is clearly visible in this paper, I attempt to reflect on my experiences analytically and contrast them with the literature of the field as well as the interview data. Finally, the aim is to provide a theoretical analysis of the issues discussed, rather than a subjective, narrative account.

Eight technical communicators were interviewed for this study. I used by my own professional networks to find the interviewees, who are based in three different Finnish cities. The interviews were originally conducted in Finnish and have been translated into English by me. Six of the interviewees (A, B, D, F, G and H) have been

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working both as in-house and as outsourced technical communicators, two (C and E) as subcontractors only. The interviews were face-to-face and semi-structured (di Cicco-Bloom & Crabtree, 2006, p. 315), with questions ranging from professional and educational backgrounds to future visions and aspirations. The semi-structured interview type was chosen in order to have a common framework for the discussions while allowing them to progress freely. None of the interviewees had a degree in technical communication, but three of them (A, B and C) had completed a technical communication minor or other studies in the field. All had a background in English studies and a minimum of 10 years of work experience. The interviews have also been used as data in Virtaluooto (2013).

The aim of this paper is to provide concrete examples of a technical communicator's work as it is today and how the interviewees see it evolving in the foreseeable future. This paper is part of my larger study investigating technical communication as an activity.

### Users: Our Top Priority

We already know that users go to documentation when they cannot get help elsewhere (for example, Anson, 1998, p. 94; Schriver, 1997, p. 384), and they expect it to be accurate and easy to use so that they can complete the task at hand (Anson, 1998, p. 94). In other words, documentation is not read from cover to cover, but to solve current problems as they come up, and often as a last resort. According to, for example, Price and Korman (1993, p. 6) and Van der Geest (1994, p. 54), we should be able to show users how they can carry out the tasks in their own work, rather than describe the product and let the users figure out how they can benefit from it. Spinuzzi (1999, p. 21) points out that we should be aware of the user's activities and available resources for the documentation to fit into its intended environment—its “ecology of genres”—and to be truly useful. Spinuzzi goes on to emphasize the need for “coauthoring,” the technical writer as a collaborator and facilitator for the user (1999, p. 21).

My own experiences in the field of technical communication correspond with the above visions of user-centeredness. I was once involved with documenting a radio broadcasting system called RadioMan, which encompassed the entire workflow at a radio station—from editing various types of material

to broadcasting and archiving. The company producing the RadioMan system was small and flexible, allowing me to broaden my own professional horizon from technical writing to training and consulting. Once, while I was presenting the RadioMan software at a User Group meeting, one of the system's users came up to me to discuss documentation issues: they had recently gotten a new version of the RadioMan user guide, and had questions about the jingle section. The RadioMan system contains a jingle bank for broadcasting short audio clips on top of the actual playlist; these are often ads for future programs, traffic announcements and so on. The way the jingle bank works is quite simple: you can drag-and-drop audio clips from the database onto the jingle buttons on the screen, and then play the jingles by clicking the corresponding button on the screen or by using the special On-Air keyboard that comes with the system. In the studio, the clicks of a mouse are not desired background noise, so the keyboard is mainly used for playing the jingles. On the keyboard, there is a numbered button for each jingle, corresponding with the jingle bank section visible on the screen. Once you play a jingle, an X appears on the button on the screen, but this does not stop you from playing the jingle again: it is just a visual cue showing which clips had already been played.

This was more or less the information provided in the user guide, too, but the person that had come up to me said they wanted to “know more about jingles; you know, more information about them.” I was dumbfounded. To me, that was all the information there was about the jingle bank: drag-and-drop, click to play, play again if needed. It was not until much later, when visiting another customer, that I realized what the user guide was lacking. There was a hectic afternoon show on in the studio, with two audio engineers manning the computers, traffic announcements coming in, guests coming and going, the next presenter waiting in the wings—and the jingle bank was used to wrap up the show in a very innovative way. Instead of playing one short clip at a time, the presenter of the previous show had placed a long, instrumental music piece on the first jingle button and hit play; the subsequent buttons were then used for shorter ads and announcements, fading out the music slightly for each one. With the help of the jingle bank, the audio engineers were able to change the playlist from the current show to that of the upcoming show without interrupting the broadcast, giving the

next presenter ample time to get ready. Whenever a jingle was played, a special cardboard place holder was placed on top of it on the On-Air keyboard, making it clear on the keyboard as well as the screen what the play order was. The users had augmented the system with an additional tool (compare to Spinuzzi, 2000, p. 174), and were getting more out of it than we, as the designers of the software, had perhaps intended. The user guide, on the other hand, had been written with the product, not the user in mind: it described the functionality of the product accurately, but did not show how a broadcaster could use it in real life.

In my opinion, the only way for a technical communicator to gather this type of user information is to see how users work in the real world, and it is impossible to be a user advocate without this information (compare to Price & Korman, 1993, p. 6; Van Laan & Julian, 2001, p. 99). This, I thought, would be the future of technical communication. And yet, none of the technical communicators interviewed as part of this research had direct contact with users; none of them attended user meetings or had established feedback channels for user comments. Anson (1994, p. 99) suggests that technical communicators do not analyze their audience but provide information on a “the more information, the better” principle. This is probably true, but it is the result of the current work environment rather than an unwillingness to get to know the audience; if you include “everything,” there is less chance that something crucial is left out by accident.

Lee and Mehlenbacher (2000, p. 547) report that technical communicators see themselves as “information gatherers”: their work involves learning as much from the SMEs (subject matter experts) as they can. However, one of the technical communicators in their study stated that their role is to “get the facts and data I need to write useful information for the users of the software” (*ibid.*). Lee and Mehlenbacher do not mention which departments the SMEs belong to, but it is mentioned that the SMEs write code and create software (2000, p. 548). This product-centeredness mirrors the interview data in this paper: the people who design the product are used as an information source when writing for the users of the product. Is the typical software engineer really a user expert? They will be able to tell you how the product has changed and what the new features do, but will they know why these new features have been introduced and how the users are expecting them to

work? Price and Korman (1993, p. 30) suggest trainers, marketing staff and troubleshooting engineers as useful people for finding out who your audience is. However, subcontracted technical communicators rarely have access to any other SMEs than the ones appointed by the customer—and usually, these are “R&D engineers” (according to Interviewee F, for example).

According to Spinuzzi (2000, p. 170), a documentation set has traditionally been seen as a closed, centrally designed system, intended as the only source of product information for users although Carroll and Van der Meij (1998, p. 80), for example, have also emphasized that documentation should be an “actively evolving solution rather than a relatively stable and contemporary documentation set.” In addition, usability has been seen as a feature of the documentation product: either in the product or not in it (Spinuzzi, 2000, p. 171). In the real world, of course, things are not this simple. As Spinuzzi (2000, p. 170) puts it:

In practice, then, the technology-in-use is not documented by a closed document set; it is documented by a perpetually open-ended, dynamic, shifting, and always unfinished ecology of resources encompassing a variety of media and domains. (Spinuzzi, 2000, p. 170.)

According to Spinuzzi (2000, p. 176), technical communicators should consider their documentation set as an open system, a genre ecology, while they “plan research studies; analyze data from the research of existing documents; and plan how to implement new forms of documentation.” Carroll and Van der Meij (1998, p. 59) also call for an iterative design process of user documentation, where “feedback from users and their work contexts pervades the process.” Perhaps this is further evidence of the gap between technical communication scholars and technical communication practitioners discussed by Blakeslee and Spilka (2004, p. 82–83), but according to the data of this study, the reality is that the current technical communication environment does not allow for any of that to take place. Spinuzzi goes on to suggest dynamic user profiling as a way to construct documentation:

With knowledge about the software and hardware that a user has available—as well as information about the habits and past computing experiences of

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the user—a skilled technical communicator would be able to design more appropriate documentation than typical user profiles allow. (Spinuzzi, 2000, p. 179)

It is unclear what types of products-to-be-documented Spinuzzi is referring to here, but for me, this type of approach is quite hypothetical: for example, in a radio station environment such as the one discussed above, there are various users per workstation which all have standard software and hardware. The users may log in as themselves or as generic users, depending on the task at hand. Even in a more traditional workstation setting, not all users are willing to share their computing habits for tailored documentation purposes. In addition, in today's hectic, offshored and outsourced technical communication environment, there is not enough time or resources for traditional user profiling, let alone for creating single-user documentation on the go.

Spinuzzi (2000, p. 178) suggests “organic engineering” as a way to plan dynamic forms of documentation: the aim would be to identify spaces within a user's activity where we could introduce documentation pertinent to that component of the activity. For example, to go back to the radio station example, we could offer simple, laminated instruction leaflets for the studio environment, and a more comprehensive set of instructions for the newsroom. What these instructions would contain would differ from radio station to radio station; the production environment of commercial broadcasters is quite different from that of public broadcasters. Naturally, not all radio stations have the same system setup or the same applications in use, and the work processes and job descriptions of their employees also vary. All of these aspects should be taken into consideration when planning documentation, and the resulting information set would then be applicable in a specific radio station environment. Presumably, this type of tailored documentation would correspond better to the day-to-day tasks of the employees. However, as discussed above, the technical communicator would need extensive knowledge of the radio station and the way it operates to produce tailored documentation. According to Spinuzzi (1999, p. 21), this approach would “decenter” the technical communicator, transforming him/her into a collaborator of the user in the user's work tasks. In my opinion, however, the technical communicator is very rarely in the center: documentation revolves around the product

and its SMEs. The typing up of the information may seem as a central task, but it is not—it is often merely secretarial (compare to Slattery, 2007, p. 315). According to Slattery, “We face problems being experts, not in what information should be organized and how, but only in the process of bringing it together” (2007, p. 323).

In addition, when a new system is being introduced, the users of the existing system may not be entirely thrilled about the disruptions to their familiar routines. When visiting a radio station to discover their current work processes, the question I most got asked was whether I could “promise that nothing will change.” I suggested that change was precisely the reason they were upgrading to a digital system: certain tasks would become much easier than they had been in the past. The employees were not convinced. According to them, things were just fine as they were, and they also felt that whenever “the boss” introduced a streamlined work process, someone would get fired as a result. In a situation like this, it may be quite difficult to discover which spaces—or “ecological niches” (Spinuzzi, 2000, p. 178)—require tailored documentation. A traditional document set, at any rate, will not provide the needed information, which is why a lot of customers tailor it themselves to fit their specific needs. Is this the type of technical communication we should be offering? According to the interview data, our current work environments certainly do not encourage us to proceed in this direction. Subcontracted and offshored documentation teams especially have no access to the users or user data on the documents they produce—essential for producing tailored documentation.

### Outsourcing and Offshoring

Outsourcing and offshoring are some of the current buzzwords of the technical communication industry. Along with other non-crucial IT sector tasks, technical communication was first outsourced and then offshored in the interest of cost-savings. Outsourcing, or subcontracted technical communication, was originally seen as a positive phenomenon in the field: the idea was that the subcontractors, being experts of the area, would offer services ranging from planning and quality improvement projects to day-to-day writing tasks. In reality, however, customers were often reluctant to pay for anything other than basic updates, and the technical



writers were reduced to typing up information provided to them by the SMEs. Interviewee B had experience of being both an in-house and a subcontracted technical communicator, and found that being a subcontractor makes it difficult to have access to the necessary information and is also limiting in other ways:

Interviewee B: As a subcontractor, you are so far from the product that it is difficult to do high-quality work; the deadlines are impossible, and the customers are not willing to pay for development work. You are not allowed to do anything outside of what's agreed in the contract. You get no feedback or input from the SMEs and have no access to the databases. When you are in-house, you are more invested in the quality and the end result, as it is your own company and products. You have more influence and possibilities for development. I was once involved in an outsourcing project where the subcontractor did a study on the problems that had occurred during the project, but nothing was done although the problems directly affected the user documentation of the customer company.

It would seem that in the case of subcontracted technical communication, the additional divide between the supplier and the customer company does little to enhance the quality of the documentation produced. Slattery (2007, p. 314) discovered similar issues in his study of subcontracted technical writing: the writers had little subject matter expertise and were not on the same site as the SMEs who provided the necessary information. According to Slattery (2007, p. 315), this type of documentation is assembled rather than written, and the writers are removed from the product development process both physically and institutionally. He goes on to point out that subcontracted technical communicators are facing the risk of their expertise being reduced entirely to the assembly of documentation (Slattery, 2007, p. 323).

There are various subcontractors in the field, each with their own company style. Interviewee A had worked for multiple subcontractors and discovered that there are major differences in the way the companies operate: in one company, there were problems in routine issues, such as getting the correct pay, while in another company, the employees had real influence in the way the work was conducted:

Interviewee A: There are big differences between different subcontractors: in one, we [the employees] had to constantly worry about basic contract-related issues, such as getting the correct pay. The company had an extra layer of middle management, which made the organization quite heavy. In another subcontractor company, the middle managers were let go instead of the employees, which resulted in, for example, better pay for us [the employees]. We were able to have a say in contract negotiations with customers, which resulted in more realistic projects. It is quite often the case that the sales people conducting the negotiations know nothing about actual technical writing, causing really bad contracts.

The divide between the sales people and the people doing the actual technical communication work seems to be quite a common source of problems. Interviewee E also had bad experiences of unrealistic contract negotiations—it seems that the sales personnel sometimes concentrate on getting the new client, regardless of the scope of the project:

Interviewee E: The sales people promise the earth in the negotiations, without really knowing what they are promising. We [documentation project managers] are not consulted in time, and we are not allowed to ask too many questions—they just want the new customer, whatever it takes.

Giammona (2011, p. 60) points out that outsourcing can be helpful if it is used as a way to support the existing staff, but that the use of unqualified resources—often the case in offshoring projects—can endanger the work done by technical communicators as a whole. According to Giammona (2011, p. 64) offshoring also means that the technical communicators in higher-cost countries need to develop project management and editorial skills. I slightly disagree—what would be the reason for companies to keep project management and editorial work in higher-cost countries when the rest of the tasks associated with technical communication are moved to lower-cost countries? Project management and editorial skills are quite generic and do not require high-level specialist knowledge of the product, the documentation system, the user or the customer. As an in-house technical communicator put it:

## Current Issues and Future Visions for Technical Communication

Interviewee B: Now that I'm a customer documentation project manager, I have no knowledge of the contents of the documents or the tools that are used in the documentation process. The product department "owns" the documentation, we just deliver it. It is not a specialist task, it is a delivery task.

Do we really need all these layers of management in order to create technical communication products? In a single, outsourced technical writing project, we may have a full management structure on the customer's side as well as the subcontractor's side, with the SMEs from R&D and product management all pitching in. This type of multi-layered organizational structure is quite costly and rigid, further reducing the technical communicator's chances of independent decision-making.

### Future Visions

In the previous sections of this article, I have discussed some of the main issues that the interviewees feel are currently shaping our field. I also asked the interviewees to comment on the future of technical communication as they see it. Most of them were quite skeptical; the IT sector is going through a major restructuring in Finland at the moment, which clearly shows in the field of technical communication, too. Many major employers are going through a rough patch, and the vendor companies, that traditionally have been able to bring new people into the field, are also struggling. There were two trends that showed in the interviews: the shift toward technical communicators with an engineering background, and the shift toward crowd-sourcing and collaborative writing:

Interviewee B: This is a dying industry; it is going through a major transformation. In the future, there will be no Arts majors as technical communicators, the work will be done by multi-skilled engineers instead. Collaborative writing will be the norm, customers will give direct feedback and the documentation will be updated as a collaborative project. My own future is open. I don't think this is a job I'll be able to retire from.

In addition to the shift from technical communicators with an Arts background to those

with an engineering background, the cost of technical communication continues to be an issue. According to Interviewee A (a subcontractor), price seems to be the deciding factor, and he also mentioned crowd-sourcing as a way to cut costs even further:

Interviewee A: Quality doesn't matter anymore; it's all about the price. Customers don't want the best, they want the cheapest. Technical writing has already been moved to low-cost countries. The next trend will probably be crowd-sourcing... what could be cheaper than that?

Interviewee D (in-house) had similar thoughts about the price of technical communication, and she also felt that the current work environment is quite demotivating: your own contribution does not matter when cost-cutting is the aim of the company.

Interviewee D: China and India are starting to be "expensive," what next? The work has gone so insane that it is just basic survival now. I no longer put in extra hours because it's no use, you can't control chaos. Quality doesn't mean anything—no matter how well you do your own work, you can still get fired just like that. Do they pull the names out of a hat or something?

Interviewee C also mentioned crowd-sourcing as a future trend for consumer products and compared technical communication to the subtitling business. In Finland, television programs and movies are subtitled rather than dubbed, and many major broadcasting companies have recently begun using vendors instead of their own employees for audiovisual translation. The vendor companies, in turn, often use freelance translators.

Interviewee C: The whole profession will be wiped out [in Finland], or it will become freelancer-based like the AV translation business. I think consumer product documentation will become crowd-sourced.

As outsourcing and offshoring have become more commonplace, fear for the future of the field in Finland (or any "higher-cost country," for that matter) has also increased. I actually borrowed the rather provocative title of this article from an interviewee, who thinks that the future of technical communication is rather different

from the present—a cross between crowd-sourcing and co-authoring:

Interviewee G: I don't know, maybe it [the future] is the death of the technical communicator? A slow, withering death. I think user manuals will all eventually be online, where everyone can comment on them—that would be a good way to get direct feedback. Someone will, however, still have to write the first version that will then get torn to pieces in the social media.

In her vision, the technical communicator—or “someone”—will write the first version of a user guide, which will then be collaboratively updated. This is not exactly the type of co-authoring suggested by Spinuzzi as discussed above, but it does offer the technical communicator a direct channel for user feedback—something that is often lacking in our current work environments.

However, while certain consumer products may be open to crowd-sourced documentation, some products are so technically challenging that it is difficult to find a single SME to approve the documents for publication, let alone find a technical communicator capable of writing them. One interviewee had found herself in quite an impossible situation because of this:

Interviewee C: So we have the SME team who understands the product, and we have a customer representative who understands the product, and then we have a “stupid” Arts major in between trying to provide the product information.

In cases like these, the main responsibility for the document contents is left to the SMEs, emphasizing the general feeling that technical communicators are not doing their work. Interviewee C wanted to emphasize that she does not think she is “stupid”; it is the community around her that perceives the situation like this because of the impossibility of her task. As Barefoot (interviewed and quoted by Giammona, 2011, p. 65) puts it: “The days of the Arts major going into technical writing are numbered.” For the more technical products, this may indeed be the case.

The general feeling in the field is that being a subcontractor is generally more difficult than being an in-house technical communicator (compare to

Virtaluoto, 2013). However, the only interviewee in this study who was basically happy with her work was a subcontractor. She felt that her expertise was valued both by her own company and the customers, and she also had direct influence over project deadlines:

Interviewee F: I'm very, very good at my job, and my boss knows it. She'll ask me how long a job would take, I say three weeks, she puts three weeks in the contract and that's it. I do the work in three weeks and everyone is happy. My boss knows she can throw any type of product in front of me, and I'll find out how it works. As a subcontractor, I can offer an outsider look, a new perspective on the project to be documented. I get to use my expertise, and the customers are starting to ask for my help.

She was also the only one whose future visions were to do with the tools of the trade, rather than the future existence of the trade: she mentioned STI (Simplified Technical English) as a useful way to standardize a company's technical communication products and cut down on the routine tasks associated with the field.

## Conclusion

The aim of this paper was to discuss the current state and future of technical communication in Finland as the interviewees see it. The interview data was combined with my own experiences and the literature of the field to come to a more in-depth understanding of the issues we are facing. The field of technical communication seems to be going through a major transformation phase in Finland, and this transformation is coinciding with the worldwide economic slump and the restructuring of many Finnish export businesses. These things combined make this a very difficult time for the field, which is obviously reflected in the interviews. I would have liked to provide a more positive view of the future of our field in this paper—for myself as much as for the readers—but unfortunately the data did not allow me to do so. However, as this is an autoethnographic paper, it is necessary for me to also consider my own impact on the results; did I put enough emphasis on reporting what was being said by the interviewees, rather than my subjective interpretation of it? As a CMR, was I able to detach myself enough to be unbiased? My ultimate aim was to give the interviewees a chance to speak their mind, and I hope I succeeded.

## Current Issues and Future Visions for Technical Communication

So, is the technical communicator really the Willy Loman of the IT industry, with big dreams that never amounted to much? At least some of our skills seem to be no longer needed by the corporate world; our attempts at becoming “boundary spanners” or “strategic negotiators” (Hart & Conklin, 2011, pp. 140–141) have not yet materialized. In addition, while our single-sourcing environments offer us clear synergy benefits, they are often quite heavy to operate, resulting in more time spent fiddling with the system and less on actual technical communication. As Slattery (2007, p. 318) puts it, “there is the very real concern that the difficulty of these technologies and environments might relegate technical writing to a technological skill.” He goes on to point out that once structured authoring systems undergo the same usability evolution as desktop publishing, these types of tasks may become automated (*ibid.*); if that does indeed happen, what is the added value that technical communicators bring to the table? Are we the modern-day typing pool, soon to become obsolete?

As discussed above, we are supposed to be the user’s advocate, but have no access to users; often, we are as physically removed from the company creating the product as we are from the customers who use it. According to Spinuzzi (2000, p. 174), in the traditional, closed-set documentation genre, “writers design a manual to inform the user.” In my opinion, we are not even there yet—on the basis of the data in this paper, “writers update information to correspond with new product design.” The starting point is the product and its new or changed features, not the user. The writing process involves updating, augmenting and copy-pasting information from a variety of sources, rather than designing a manual as a coherent whole. Slattery (2007, p. 315) calls this type of documentation “not so much written as assembled—a pastiche of contributions from multiple individuals.” The writer is a master of the documentation system, not of the product or the user. This type of work is mechanical and repetitive, making it an easy candidate for outsourcing and offshoring. In 2005, Hackos (p. 275–276) argued that customer knowledge is critical to our work and also difficult for “low cost innovators to emulate”—in other words, something that is difficult to offshore. In my opinion, this is still true today, and it is where we should be heading as a profession. On the basis of the interview data, however, it is difficult to see any clear signs of the field actually progressing in this direction. It is also

difficult to say what the future of the field will be in Finland, but generally speaking, it is likely that there will be different types of technical communication for different products: for example, crowd-sourced or co-authored documentation for consumer products and SME-driven documentation for technically challenging business products. This development requires us to expand our horizons beyond traditional technical writing tasks (compare to Spinuzzi, 2007, p. 273).

While the picture painted in this paper is quite bleak, the interview data has illustrated the complexity of the issues we are facing. In this complexity lies the seed of something new, a future. In the next stage of this research, I will apply the tools offered by activity theory and developmental work research (Engeström, 1995; Nardi, 1996) to the interview data to explore the possibility of discovering a more sustainable model for technical communication.

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### About the Author

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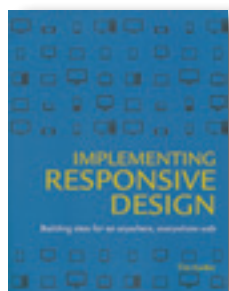
# Review of Four Books on Responsive Web Design

Avon J. Murphy

## Introduction

Today's technical communicators must make their content easy to access on not only desktop and laptop computers but also mobile phones, tablets, and other devices with varying screen sizes. The major technical solution to the usability problems introduced by this new reality is responsive Web design (RWD), through which content reflows in response to screen size; presence or lack of a keyboard, buttons, and swipable screen; and other factors. RWD has definitely arrived since its popularization by Ethan Marcotte's *Responsive Web Design* (A Book Apart, 2011), as seen in large Web sites designed for responsiveness (including many U.S. government sites), its serving as the core of college Web design programs, and in STC presentations on RWD. Lynda.com, the prime source of training videos for designers, has released 19 RWD courses in 12 months. Fortunately, we also have some useful books; the four discussed in this article range from strategic overview to cookbook. All have sample code available.

## Implementing Responsive Design: Building Sites for an Anywhere, Everywhere Web



Tim Kadlec expands Marcotte's revolutionary insights to give us principles to consider when we plan and build sites. Using screenshots, selective code snippets, and technical literature, Kadlec takes us through careful analyses, reminding us not to seek solutions that will be perfect for all sites.

The strongest chapters are early ones, focusing on fluid layouts, media queries (CSS queries that check for the conditions of such features as width and height), and responsive media (such as images, video, and Web fonts). Extremely valuable and interesting are the comparisons of the merits and drawbacks of alternative

ways to do things. For example, is it best to size fonts using pixels, ems, percentages, or rems?

Also useful are the later chapters on planning, workflow, responsive content, Responsive Design and Server-Side (RESS) components, and responsive experiences. However, here the prose gets a bit longish, and repetition creeps in.

Read this book to understand the context that should inform your choices. While other authors, for example, might devote several pages to the step-by-step use of a particular framework (a library of modules and packages), Kadlec cautions us not to overuse frameworks, sets them in the context of style guides (known also as design guidelines), and provides several pages on creating our own style guides.

## Responsive Design Workflow



As his title suggests, Stephen Hay is strong on overall process. This visual designer distrusts cookie-cutter approaches and mere button pushing. He recommends a workflow that combines visual sensibility “with content strategy, interaction design, usability, and reality” (p. 11).

He outlines what works for him: inventory your content, create uncomplicated wireframes, design in structured text, develop a reference design for your use of such components as layout and typography on different screen sizes, graph your breakpoints (where your layout changes in response to changed screen width or other conditions), sketch your ideas into a set of thumbnails, create a Web-based design mockup, present your design to your client through screenshots and then interactive mockups, and create your style guide.

Hay wisely recommends starting with your basic content and working out to the more complex. This means not starting with complicated wireframes, and

perhaps starting with your mobile screens rather than your more content- and feature-laden desktop screens.

The book does three related things especially well. First, Hay details full instructions for sketching your ideas, recommending that you sketch on various devices to sharpen your feel for size and spacing. Second, he offers brilliant pages on using your sketching acumen to graph major and minor breakpoints (he is the guru in this area). Third, he espouses good project documentation (partially automated with Dexy software), which includes your style guide with its sketches, screenshots, syntax-highlighted code, and more.

### **HTML5 and CSS3 Responsive Web Design Cookbook**



Benjamin LaGrone provides expert hands-on recipes (short tutorials) for doing several dozen RWD tasks. Want to add shadows to your fonts? That's here. Need to create a virtual machine using VirtualBox? That's here, too. Combining the table of contents and the well-written

index, you can easily find recipes for particular tasks.

The recipe structure is bulletproof: "Getting ready," "How to do it," and then "How it works." LaGrone's expertise shines especially when he goes into "How it works," where he often adds alternative actions.

A couple of glaring weaknesses are immediately obvious. First, LaGrone provides little introduction or other context. A chapter simply launches a recipe with no preparation. You learn, for example, how to design for mobile devices before considering the desktop but get no insight into why that's a good approach. One chapter goes through the details of several frameworks, one after the other, without considering why you'd use a framework for a given project in the first place.

Second, someone seems to have forgotten to proofread. The grammar often mystifies, and the code printed in the book sometimes doesn't work; the downloadable code, however, works fine.

Even with the weaknesses in the presentation, LaGrone shares must-know information not found in most books on RWD.

### **Responsive Web Design by Example Beginner's Guide**



Thoriq Firdaus gives you practice on three projects, each described in two chapters. One chapter shows how to construct the site using a popular framework; the next shows how to enhance the site.

You learn how to construct a responsive portfolio page using

Skeleton and then how to enhance it with CSS3.

You then do a product launch site using Bootstrap and enhance it with CSS3 and LESS (Leaner CSS). Finally, you create a business site using Foundation and enhance it with Sass (Syntactically Awesome Stylesheets). In the course of this learning by doing, you work with various HTML5 elements, customized fonts, CSS selectors and pseudo classes, control styles, stylesheets, and more.

Several times in each chapter, Firdaus sets up a goal, goes into "time for action" (steps to achieve the goal), and then explains "what just happened." There's not much prose between code snippets and screenshots—although the author occasionally pauses for notes and tips, usually in gray boxes—so the pace is rapid.

The phrasing and coherence can be ragged, and as in LaGrone's book, the downloadable code works better than the printed code. But if you want to take three major frameworks for a ride, this book is a good start.

### **References**

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- Hay, Stephen. (2013). *Responsive Design Workflow*. Berkeley, CA: New Riders. [ISBN 978-0-321-88786-3. 224 pages, including index. US\$39.99 (softcover).]

## Four Books on Responsive Web Design

Kadlec, Tim. (2012). *Implementing Responsive Design: Building Sites for an Anywhere, Everywhere Web*. Berkeley, CA: New Riders. [ISBN 978-0-321-82168-3. 272 pages, including index. US\$39.99 (softcover).]

LaGrone, Benjamin. *HTML5 and CSS3 Responsive Web Design Cookbook*. (2013). Birmingham, UK: Packt Publishing. [ISBN 978-1-84969-544-2. 188 pages, including index. US\$44.99 (softcover).]

### About the Author

**Avon J. Murphy** is a technical editor in western Washington. A retired college professor and government writer, he is an STC Fellow, a contractor, and principal in Murphy Editing and Writing Services, specializing in computer and Web technologies. Avon served as Book Review Editor for Technical Communication for 17 years.

**Table 1: Books on Responsive Web Design Compared**

	Implementing Responsive Design	Responsive Web Design by Example Beginner's Guide	Responsive Design Workflow	HTML5 and CSS3 Responsive Web Design Cookbook
Audience	Intermediate	Beginner to intermediate	Beginner	Advanced
Major strengths	<ul style="list-style-type: none"> <li>• Full context for all issues</li> <li>• Maturity of vision in cautioning not to seek one solution for all sites</li> <li>• Presents alternatives</li> <li>• Coverage of style guides</li> </ul>	<ul style="list-style-type: none"> <li>• Thorough details on 3 frameworks</li> <li>• Addresses design of 3 popular kinds of Web sites</li> <li>• Rapid, no-nonsense pace</li> </ul>	<ul style="list-style-type: none"> <li>• Well-described workflow that most readers can adapt</li> <li>• Full context for all issues</li> <li>• Reflections on simplicity in design</li> <li>• Superb advice on sketching</li> <li>• Original advice on graphing breakpoints</li> <li>• Extensive coverage of documentation, including style guides</li> </ul>	<ul style="list-style-type: none"> <li>• Many specific tasks to choose from</li> <li>• Consistent recipe structure</li> </ul>
Major weaknesses	<ul style="list-style-type: none"> <li>• Some repetition</li> </ul>	<ul style="list-style-type: none"> <li>• Pace might be too rapid for some readers</li> <li>• Inaccurate printed sample code</li> </ul>	<ul style="list-style-type: none"> <li>• Some readers might want more detail on tools other than Dexty</li> </ul>	<ul style="list-style-type: none"> <li>• Little context for the recipes</li> <li>• Lax proofreading</li> <li>• Inaccurate printed sample code</li> </ul>
Comments	A fine book to start you thinking about responsive Web design. Very good value.	Trustworthy advice on a limited topic, but watch out for inaccurate code samples. Good value.	Wisdom combines with inspiring hands-on recommendations to get you working on your Web sites. Excellent value.	Useful smorgasbord of tasks, but watch out for weak writing and inaccurate code samples. Fair value.
Rating (5-star scale)	****	***	*****	**
Cost (USD)	39.99	44.99	39.99	44.99

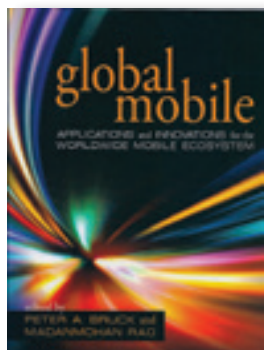


## Books Reviewed in This Issue

<b>Global Mobile: Applications and Innovations for the Worldwide Mobile Ecosystem</b>	52	<b>Saving the World: A Brief History of Communication for Development and Social Change</b>	62
Peter A. Bruck and Madanmohan Rao, eds.		Emile G. McAnany	
<b>The Elements of Graphic Design</b>	52	<b>Signs for Peace: An Impossible Visual Encyclopedia</b>	63
Alex W. White		Ruedi Baur, Vera Baur Kockot, and the Institute2Context, eds.	
<b>A Unified Theory of Information Design: Visuals, Text &amp; Ethics</b>	53	<b>Rhetorical Accessibility: At the Intersection of Technical Communication and Disability Studies</b>	64
Nicole Amare and Alan Manning		Lisa Meloncon, ed.	
<b>Well Said! Presentations and Conversations that Get Results</b>	54	<b>The Best of Brochure Design 12</b>	65
Darlene Price		Public	
<b>Designing Information: Human Factors and Common Sense in Information Design</b>	55	<b>Word Up! How to Write Powerful Sentences and Paragraphs (And Everything You Build from Them)</b>	66
Joel Katz		Marcia Riefer Johnston	
<b>Be the Captain of Your Career: A New Approach to Career Planning and Advancement</b>	56	<b>Design for Emotion</b>	66
Jack Molisani		Trevor van Gorp and Edie Adams	
<b>Microsoft Word 2010 for Medical and Technical Writers</b>	57	<b>Foundation HTML5 with CSS3: A Modern Guide and Reference</b>	67
Peter Aitken and Maxine Okazaki		Craig Cook and Jason Garber	
<b>Visual Quickstart Guide: CSS3, 6th ed.</b>	58	<b>Bartlett's Familiar Quotations</b>	68
Jason Cranford Teague		John Bartlett	
<b>The Good Life in a Technological Age</b>	58	<b>MediaWriting: Print, Broadcast, and Public Relations, 4th ed.</b>	69
Philip Brey, Adam Briggie, and Edward Spence, eds.		W. Richard Whitaker, Janet E. Ramsey, and Ronald D. Smith	
<b>Verbal Minds: Language and the Architecture of Cognition</b>	59	<b>The Mobile Frontier: A Guide for Designing Mobile Experiences</b>	69
Antoni Gomila		Rachel Hinman	
<b>158 Tips on mLearning: From Planning to Implementation</b>	60	<b>To Save Everything, Click Here: The Folly of Technological Solutionism</b>	70
The eLearning Guild		Evgeny Morozov	
<b>Lean UX: Applying Lean Principles to Improve User Experience</b>	61	<b>The Web Designer's Roadmap: Your Creative Process for Web Design Success</b>	71
Jeff Gothelf		Giovanni DiFeterici	
<b>Designing Web-Based Applications for 21st Century Writing Classrooms</b>	62	<b>Creative Intelligence: Harnessing the Power to Create, Connect, and Inspire</b>	72
George Pullman and Baotong Gu, eds.		Bruce Nussbaum	

## Global Mobile: Applications and Innovations for the Worldwide Mobile Ecosystem

Peter A. Bruck and Madanmohan Rao, eds. 2013. Medford, NJ: Information Today, Inc. [ISBN 978-1-57387-462-5. 620 pages, including index. US\$49.50 (softcover).]



A quotation from popular science author John Agar, “You can tell what a culture values by what it has in its bags and pockets,” draws the reader into Rao’s opening part, “A World Gone Mobile” (p. 1). Rao compares the pocket watch, a status symbol of the 17th century, with our mobile cell phones of today. He points out

that “like watches, cell phones started off as expensive status symbols, . . . , but are now owned by billions of people worldwide” (p. 1).

From there, Rao fast forwards to the future with predictions as far into the 22nd century as 2110. He predicts we will have the capability to read minds, photograph dreams, create new life forms, and use magnetic cars and trains for transportation. His other predictions, still within the lifetime of some of us, are DNA chips, driverless cars, and flexible electronic paper.

Editors Bruck and Rao invited more than 30 global media experts to share their insights about the foundations, impacts, and the road ahead for mobile technology. In the introduction, they highlight each contributor’s content. Bruck and Rao conclude their book by summarizing each contributor’s expertise in the mobile arena.

In Chapter 1, “Mobile and Megatrends,” former Nokia executive Tomi Ahonen jolts the reader awake stating, “The innovation in mobile is relentless, and some predict that the world will change more in the next 10 years than it has in the preceding 100 years” (p. 13).

I especially liked Chapter 7, “Mobile Web Design Strategies.” Contributor Janine Warner (creator of DigitalFamily.com) compares mobile Web applications and native applications. This discussion has immediate value for those readers considering mobile Web design. Warner walks through the American Airlines application and includes actual screen shots for comparison. Although Janine recommends using the actual device to test mobile sites, she mentions an online emulator, [www.keynotedevicanywhere.com](http://www.keynotedevicanywhere.com).

Pavan Duggal discusses one area that will likely affect us in Chapter 30, “Mobiles and the Law.” There are new kinds of crimes emerging in the mobile world that include mobile hacking, mobile cyber defamation, identity theft, phone cloning, cyber stalking, virus dissemination, software piracy, credit card fraud, and phishing.

Other chapters deal with health, education, journalism, entertainment, workforce, social media in enterprises, small business, rural areas, government, and regulatory issues in the Internet. Each chapter is like a snapshot showing where and how mobile technology is used. However, I was hoping to find more about the societal effects similar to what Jan Van Dijk presents in his book, *The Network Society* (reviewed in *Technical Communication*, October 2013). Certainly, we know mobile technology is changing society. But, I would prefer to see more research presented by the writers of these chapters regarding the effects of mobile technology on society.

### Rhonda Lunemann

Rhonda Lunemann is a technical writer with Siemens PLM Software, a senior member of STC’s Twin Cities Chapter, and a member and officer of the Hill Speakers Toastmasters Club (Club 4415).

## The Elements of Graphic Design

Alex W. White. 2011. 2nd ed. New York, NY: Allworth Press. [ISBN 978-1-58115-762-8. 215 pages, including index. US\$29.95 (softcover).]



As a design educator, I frequently encounter books introducing fundamental graphic design principles that are useful in my “Introduction to Graphic Design” course. Introductory design books are as numerous as typefaces as many professionals try to distill their experience into a holistic guide to the graphic design foundations. Books that effectively present the principles of design are essential to the education of students seeking to understand the design process and the principles that guide it.

White divided the subject of design principles and design elements into four sections: Space, Unity, Page Architecture, and Type. Using architectural design principles as a metaphor for page grids, he presents a unique interpretation of the design principles with a unique view of page design.

In the Space section, White discusses “space” in three-dimensional terms, a strong metaphor for the arrangement of visual elements in two-dimensional page design. He considers the development of writing, movable type, posters, logos, magazines, and Web design as part of “space”, where “space” becomes a series of image-supported timelines on graphic design history. In a milestones timeline of design history, the Bauhaus is surprisingly given a starting date of 1927. The school was founded in 1919 and moved twice (1925 and 1932) before its dissolution in 1933.

The Page Architecture section expands the analogy between page structure and three-dimensional architecture. Unfortunately, White presents most page-grid designs at postage-stamp size, which makes them difficult to experience as a guide for page design principles.

The Unity design principle is in a section by itself, with seven of the ten design principles discussed in a chapter within the section, continuing the use of the space metaphor in describing the design process for page architecture.

White defines “unity” as the overriding design principle governed by the Gestalt principle “...a German term coined at the Bauhaus...” (p. 83), rather than recognizing Gestalt as a branch of psychology that explained perception, the Bauhaus adopted to emphasize the overriding importance of unity in design.

The Type section is introduced in terms of “space” and “sound” to describe both readable and expressive thinking in designing with type. White presents six aspects of typographic readability and explains them clearly with illustrations of type designs that support his thesis. In the following sections, he discusses display type and text type each in clear terms of usage and expression in design.

*The Elements of Graphic Design's* page design is a challenge to follow with most right-hand page grids containing a center column and narrow-hanging columns on the sides for image captions and quotes from design thinkers. At the top of these pages, White renders four images at postage-stamp size, which leaves the reader not knowing where to focus first or

understanding the importance of the often, too-small images and logo designs.

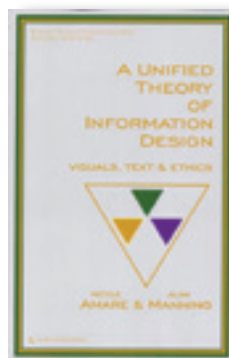
This book provides ideas that stand as valuable input for explaining design principles, but beginners learning the design process are likely to be confused.

### Stephen Goldstein

Stephen Goldstein owns a graphic design agency, is an assistant professor of communication media at Fitchburg State University, a guest lecturer, and a contributing writer to Meggs' *History of Graphic Design* and an editorial committee member. He is a published author writing in *Baseline Magazine*, *Novum*, *IdN*, and other publications.

## A Unified Theory of Information Design: Visuals, Text & Ethics

Nicole Amare and Alan Manning. 2013. Amityville, NY: Baywood Publishing Company, Inc. [ISBN 978-0-89503-779-4. 216 pages, including index. US\$47.55 (softcover).]



*A Unified Theory of Information Design: Visuals, Text & Ethics* is an attempt by Nicole Amare and Alan Manning to take disparate elements of information design and unify their discussion under a single theoretical framework. The authors argue this is important because contemporary documents weave together visuals and texts, so using a common framework to

discuss both lets designers operate “with more-focused and conscious awareness” and to produce “more-precise and reliable results” (p. 7).

Amare and Manning frame this on an understanding of the semiotic categories of C. S. Peirce. The authors use the introduction to outline the Peircean typology and ethics that they apply throughout the book. Amare and Manning then use the chapters to describe how various design elements—whitespace, graphs, etc.—fall under Peirce’s 10 categories of signs and how designers may critique designs more precisely by using these categories.

For the book to succeed at the authors’ goal of moving the discussion of design beyond a list of prescriptions or best practices, understanding

the Peircean logic of signs is key. However, the book's sequencing makes this difficult. While the introduction gives a brief overview of the three dimensions of Peircean analysis—decoration, indication, and information—the overall system is unclear until near the end of the book. This is because the Amare and Manning have chosen not to include a thorough discussion of how the typology works in the introduction. Instead, they describe the typology piecemeal as they move through different design elements. Through careful reading (and re-reading), the logic begins to emerge. But many sections seem to hover just out of grasp because the authors are flip between Peircean jargon—firstness, secondness, thirdness—and their own vocabulary to describe the same—decoration, indication, information—and because the authors hint at relationships between these elements without fully explaining them until the final chapter.

*A Unified Theory of Information Design's* examples can also be frustrating. Amare and Manning supply numerous examples of designs that work or do not work based on the Peircean system. But the text describing the examples and the examples themselves frequently appear on different pages, forcing the reader to flip around the book. Additionally, the examples are low resolution and in gray scale, which makes them less helpful when the authors are describing specifics or colors.

Ultimately, *A Unified Theory of Information Design* succeeds at presenting a framework for discussing all design elements. And careful readers are rewarded with a specific and logical typology for describing these elements. But the journey to understand that framework can be frustrating. And, while understanding this framework would be of use to a designer or instructor of design, because the framework is relatively obscure and filled with jargon, it will not make communicating about design easier unless or until more people adopt this framework.

### Jay Kirby

Jay Kirby is pursuing a master's degree in Professional Writing and Editing at West Virginia University. His research focuses on how rhetoric and technical communication operate in digital environments. He has experience teaching college composition and technical communication.

## Well Said! Presentations and Conversations that Get Results

Darlene Price. 2012. New York, NY: AMACOM. [ISBN 978-0-8144-1787-4. 242 pages, including index. US\$24.95.]



Communication, so the cliché says, is the path to success, and telling others what you do makes a long, successful career possible. Technical communicators have known this advice for years and help others be better communicators when asked. Writing advice, for example, may be found in hundreds of books with more appearing each

year. Presentation advice likewise!

Targeting mainly executives who must communicate well, Price presents a range of communication genres in her *Well Said! Presentations and Conversations that Get Results*. Based on her consulting, workshops, and webinars, Price focuses on the oral aspects including not only those mentioned in the sub-title but also e-mails, meetings, telephone conversations, webinars, and leading team presentations.

Besides form and format, she addresses content for these genres. For example, she includes chapters on persuasion, body language, dress, and voice.

What seems for her to be a major news flash is that the real key to successful communication is what technical communicators have known about and practiced since the beginning: Know your audience. Each segment of the book addresses audience implications of the topic. It's nice to see her recognize this fundamental principle because her intended audience frequently ignores who will receive the communication.

She opens each segment with a story about failed communication (following one of her suggestions for presentations to start with an interesting anecdote). From there, she smoothly moves into her main points. Each of the 17 chapters, divided into 4 sections, ends with an executive summary. The style is easy to read and accessible, so you should not hesitate to recommend the book to others. Even though her target audience is executives, anyone who communicates in non-written forms should gain from having read it.



One major flaw is that in the chapters dealing with presentation slides, there are no examples—good or bad. The reader has to dig into the text to find verbal examples for each of the principles she espouses.

A surprise in the book is the chapter on conversations. Readers rarely think about that aspect of oral communication. Following a familiar pattern, Price presents a section on preparing followed by suggestions on doing and ending with results. The chapter focuses on the numerous serious conversations held throughout the workday and not water-cooler chatting. If you are going to have a sales conversation, negotiation, strategy, recruitment, or one of the other conversation types, you prepare by clarifying in your mind your intention, the objective, and the expected results. You don't find such advice in the available books on oral presentations.

In sum, Price offers what to technical communicators will be well-known advice on effective oral communication. Mainly, though, you can safely recommend this book to anyone who asks about improving his or her oral communication.

### Tom Warren

Tom Warren is an STC Fellow, Jay R. Gould Award for Excellence recipient, and professor emeritus of English (technical writing) at Oklahoma State University, where he established the BA, MA, and PhD technical writing programs. Past president of INTECOM, he serves as guest professor at the University of Paderborn, Germany.

## Designing Information: Human Factors and Common Sense in Information Design

Joel Katz. 2012. Hoboken, NJ: Wiley. [ISBN 978-1-118-34197-1. 224 pages, including index. US\$55.00 (softcover).]



This is one of the best information design books that I've read. Joel Katz practices what he advocates. The book's relatively slim size belies the fact that it is very comprehensive and demonstrates the techniques.

Katz, a graphic designer for over 40 years, divides the book into five sections.

The sections are delineated by colors introduced in the Table of Contents (TOC). The colors are a segment of a color wheel—green, aqua, blue in the center, violet, and deep fuchsia—thus showing that color is an information design tool. Orienting yourself to the book is simple because the page numbers are in thumb marks along the edge and color-coded to the TOC.

In the first section, Aspects of Information Design, Katz states, "Information is what you absolutely must clearly communicate" (p. 15). He describes numerous and easily comprehensible information features; examples he uses here and throughout the book include data, diagrams, maps, photos, and typefaces.

An interjection: The page layout is information design. Each chapter topic is a double-faced page spread that contains five elements. Katz's explanation of the spread's theme is in the top center of the right-hand page. You then can choose how to explore the spread. You can study the examples on the facing, left-hand page, which sometimes occupies the full page and sometimes includes several examples with captions. You can then read the related quotes in the upper right section. The references are easy to find and not relegated to traditional footnote format.

The four following sections are straightforward: Qualitative Issues (Section 2), about how people perceive information and data that are presented. Quantitative Issues (Section 3) show various ways to present quantitative information. Katz is especially helpful in showing good and not so good examples of ways to present numerical information.

Section 4, Structure, Organization, Type, is one of the most complete explanations of page layout and type that I've read, all in 40 pages. Katz shows a history of icons, so you'll know what not to use and gain an appreciation of the work of earlier information designers.

Section 5, Finding Your Way?, helps designers consider how maps are used before creating one. For example, "Analogies in painting and sculpture" is a full-page illustrated table comparing a type of map or diagram to works of art (pp. 172-173). Don't be surprised if you think about all the ways/maps/diagrams you use on your next trip.

Katz expands the bibliography into Section 6: Documents, which includes a bibliography, sorted by the five sections, that shows the breadth and depth of his experience. Additional examples expand on the major sections.

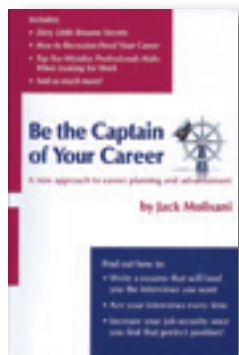
The only glitch is the typeface that Katz uses in the explanation portion of the page is a little thin. Yet, the use of a thicker typeface would unbalance the page spread components.

### Beth Lisberg Najberg

Beth Lisberg Najberg has more than 25 years' experience as an information and instructional design consultant, documenting systems, developing custom training solutions, and creating technical presentations for large corporations and public entities. She is principal of Beginnings ([www.Beginnings-Design.com](http://www.Beginnings-Design.com)), an information design consulting firm.

## Be the Captain of Your Career: A New Approach to Career Planning and Advancement

Jack Molisani. 2014. Pasadena, CA: Precision Wordage Press. [ISBN 978-0-9627090-2-9. 148 pages. US\$16.95 (softcover).]



In *Be the Captain of Your Career*, Molisani states, “I am a firm believer that you not only choose the path you want in life, you create the path you walk in life” (p. 7). He breaks his book into three sections: “Think It,” “Do It,” and “Have It.”

In “Think It,” Molisani relates how he consciously reversed his course after

almost losing everything during the 2008 economic downturn. One thing Molisani learned was to “stop digging” when in a hole because “you *can* make things right.... Stay positive. Because you can’t fix what you can’t control” (pp. 10-11).

As you review your situation, “Stop. Breathe. Think. Then act” (p. 23). You can redirect your course, but you need to know where you want to go. Molisani recommends setting “an attainable goal that [you] can set, see, reach, and then set another one” (p. 34) to achieve your goals.

In “Do It,” Molisani gives resume tips like, “Never blindly follow anyone’s advice (even mine) without verifying for yourself that it works” (p. 37). He relates

in seven tips what managers look for when reviewing resumes and concludes with five dirty resume secrets. Molisani humorously cites the top ten mistakes made when job hunting. For example, resumes should still include a cover letter. It should now be the first page of your resume with your experience written in a two-column table. The Job Requirement and My Experience table headers should showcase how your experience matches the requested skills.

Regarding online applications and social media, Molisani says to “use your personal networks, check professional networking sites like LinkedIn ... email your resume to someone in HR” (p. 73) to get your resume in the right hands. Finding job leads online requires “apply[ing] for them via a personal referral” (p. 74). For social media, employers are now doing Internet searches before asking for interviews, so be aware of what you post or tweet.

The interview is where you sell your “abilities,” not “you,” to the hiring manager. Molisani gives four critical objectives: understand the job requirements; establish that you are an expert at what you do; establish that you have done what you claim; and show how you can solve the problems they are experiencing.

In the final section, “Have It,” Molisani shows how to secure your future and attain your goals. He talks about recession-proofing your career, creating a public relations campaign, taking initiative, increasing your ability to work, and advancing your career through personal branding and progressive information disclosure.

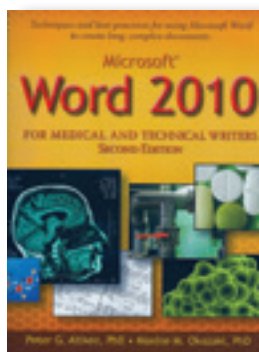
*Be the Captain of Your Career* is a must-read for anyone looking for a career or wanting to change careers by setting your ship’s direct course to the ultimate destination: happiness! Molisani’s personal experiences, his STC chapter presentations on the subjects in this book, and his passion for helping technical communicators make his book worth owning.

### Jackie Damrau

Jackie Damrau has more than 20 years of technical communication experience. She is a Fellow and member of the STC North Texas Lone Star chapter and the Instructional Design & Learning SIG. She serves as the book review editor for *Technical Communication*.

## Microsoft Word 2010 for Medical and Technical Writers

Peter Aitken and Maxine Okazaki. 2013. 2nd ed. Chapel Hill, NC: Piedmont Medical Writers. [ISBN 978-1-890586-24-2. 202 pages, including index. US\$44.95 (spiral-bound).]



*Microsoft Word 2010 for Medical and Technical Writers* provides best practices when writing long, complex documents using Word. In this second edition updated to reflect usage with Word 2010, Aitken and Okazaki, founders of Piedmont Medical Writers, offer tips and techniques based on their combined 50 years' experience

in medical and technical writing. The text is hardly an exhaustive tome, but rather a focused discussion of the features (and problems) most relevant to medical and technical writers—features like styles, templates, fields, and tables.

The book itself is well-organized and easily navigable (and the printed version's spiral binding is particularly convenient when using the text for troubleshooting or as a reference guide). Notably, the features themselves are often discussed in how they relate with other features, which helps provide a little logic behind some of the unintuitive behaviors and frustrating problems encountered. Although it does lack aesthetic flourishes, there are plenty of helpful screenshots to accompany the descriptions. In addition, the authors' recommendations and tips are offered in text boxes, providing readers with a quick take-away from a given section's content. Critical information and warnings are set apart in shaded text boxes, calling the reader's attention to important concepts, bugs, or ways to avoid undesired features or actions.

Aitken and Okazaki have an obvious levity to their writing that makes the content interesting; for example, "...whoever came up with the Prompt to Update Style and Keep Track of Formatting options should be banished to a desert island with nothing but cereal boxes to read" (p.16). The occasional joke aside, the content is relevant and concise, making it a valuable reference tool. Aitken and Okazaki successfully refine Word 2010's seemingly myriad options to those germane to

technical and medical writers. Moreover, the content is consistently framed from the professional technical or medical writers' perspective and the ways these writers actually use the program (discussions on styles and templates include challenges that arise when working with clients or collaborating with multiple authors).

Overall, *Microsoft Word 2010 for Medical and Technical Writers* is a useful reference for the target audience: authors of complex, long documents with at least intermediate-level Word knowledge. There are plenty of tips and recommendations that may be useful to novice users, yet the authors clearly intended this book for those who have a working familiarity with the program. Advanced-level users will find it a handy refresher and may learn from the authors' suggested techniques. However, the authors quickly note that many advanced options, such as macros, are beyond the scope of this work. The bottom line, then, is this book is a useful, lucidly written desktop reference for most professional technical or medical writers who use Word on a daily basis and need to harness control of their documents.

### Cory Bullinger

Cory Bullinger is an STC member and graduate student at University of Central Florida's Technical Communication program. She is interested in the shift toward digital documentation in technical communication, including the new visual designs afforded by digital media and the rhetorical implications of these digital compositions.

## Visual Quickstart Guide: CSS3

Jason Cranford Teague. 2012. 6th ed. San Francisco, CA: Peachpit Press. [ISBN: 978-0-321-88893-8. 443 pages, including index. US\$34.99 (softcover).]



*Visual Quickstart Guide: CSS3* offers a professional, energetic look into the core of CSS3. The Visual Quickstart series has been around for over 20 years and regularly looks at formatting and graphic elements in computing, such as CSS3 and HTML5. Such elements as text, font, colors, background, and more are

explored using easily accessible examples in both code and effect. While going over the CSS3 elements, Teague also encourages good design and forethought.

While no exercises exist in the traditional sense, there is plenty of example code, both in the book and on the companion site that can be modified easily by the curious to explore the concepts laid out in the text. The use of the multimedia accompaniments is encouraged to get the most out of your purchase. The e-book allows easy portability for those that don't want to haul around the book itself.

Cascading Style Sheets (CSS) have become an important element of Web design that can modify any XML or HTML page and have become crucial to developing sites. Since CSS3 has not yet been fully implemented, this book can put the reader ahead in the field.

I especially appreciated sections on HTML5 and color design. Not only did this help out a novice in the field, but encouraged me to keep the book in hand for a while to use as a general resource. Teague encourages good code through commenting, something I haven't seen in many related books. The enthusiasm and clarity of *Visual Quickstart Guide: CSS3* makes it a pleasure to read.

### Tomus Cone

Tom Cone is a student in the technical editing program at the University of Alabama-Huntsville. His fascination with the Internet goes back to 1994, where he worked as an analyst for the Air Force. Since then his studies have included journalism and Web design.

## The Good Life in a Technological Age

Philip Brey, Adam Brigggle, and Edward Spence, eds. 2012. New York, NY: Taylor & Francis. [ISBN: 978-0-415-89126-4. 358 pages, including index. US\$125.00.]



A superb example of multidisciplinary scholarship, *The Good Life in a Technological Age* challenges your thoughts about technology's role in our present and future lives. Written by scholars who combine studies in science, technology, economics, philosophy, and many other disciplines to explore if and how technology affords us a better life,

this book encourages critical thinking and reflection about whether we are better off today than when life moved at a much slower pace and was not so full of distractions. While the editors mention that this volume would be beneficial for "those working in engineering design and in policy" (p. 4), I would add that this book is a valuable resource for educators in higher education and graduate students in science, engineering, technology, philosophy, economics, and professional writing programs to name just a few.

Two hallmarks are the breadth of topics covered and the integration of multiple disciplines in exploring the central question of what constitutes a good life today. For example, in the "Capabilities and Technology" chapter, J. Johnstone uses the work of two leading theorists, one who is a Nobel Prize winner for economics and the other a feminist philosopher, to explain the capability approach and its application in assessing inequality and policy. As I read this chapter, my eyes were opened immediately to the complexity of technology and its role in modern society, especially about deciding if someone is living a good life. At that point, I was intellectually captivated and devoured the other chapters that explored happiness, consumerism, ethics, medical technology, and technology design and policy. The editors mention that this book is beneficial for anyone involved in policy making, which my opinion is that it is a must read for public policy makers. Instead of relying only on monetary measures or statistics related to access, this book enlightens policy makers about the impact of their decisions on global, community, and individual levels that are worth



considering. Each chapter in this book offers insight into the problematic measures policy makers often use in deciding what is best for others and introduce other crucial factors that are frequently ignored or left out of the decision-making process such as individual values and immeasurable and dynamic aspects of a person's life.

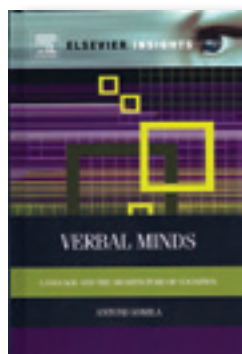
Written in scholarly, yet accessible, language, the contributors to this volume do a thorough and exemplary job of clearly demonstrating the many complicated issues that advocate for a "process of public reasoning and social choice within a liberal commitment to value pluralism" (p. 82) when assessing technology's value in our lives today. While the book price may be prohibitive in some situations, such as required reading in a graduate class where other books have to be purchased, the number of thought-provoking chapters makes it a worthwhile investment some students, educators, and practitioners may want to make.

### Diane Martinez

Diane Martinez is an assistant professor of professional and technical communication at Western Carolina University. She previously worked as a technical writer in engineering, an online writing instructor, and an online writing center specialist. She has been with STC since 2005.

## Verbal Minds: Language and the Architecture of Cognition

Antoni Gomila. 2012. Waltham, MA: Elsevier. [ISBN 978-0-12-385200-7. 142 pages. US\$64.95.]



If you wrestle with localization, translation, or English for non-native speakers, Gomila's *Verbal Minds: Language and the Architecture of Cognition* may make you even more cautious about assuming that the whole world thinks the way that we do.

He summarizes (and disputes) the results of hundreds of studies in linguistic anthropology, comparative linguistics, and cognitive psychology, trying to tease out the ways in which our native language affects the way we understand and think about our experience.

Gomila shows how the language we grow up with may shape our conceptual framework, making it hard for us to understand "foreign" metaphors, phrases, and even syntax. Areas that are particularly likely to cause confusion:

- Using subjunctive conditionals ("If you were to choose Option B...")
- Describing motion ("Moving the pointer to the menu bar...")
- Marking gender ("The screen...it; the ship...she...")
- Distinguishing and counting objects ("The two blue buttons...")
- Describing time with spatial metaphors ("Looking ahead...")

In English, we think of time horizontally (the past is behind, the future is ahead) where Chinese people think of time vertically (the future is down, the past is up). So if we write "Looking ahead to the next phase," we may create some confusion for a Chinese audience, who envision a timeline as descending, rather than racing past us. Better: "In the future."

Unfortunately, Gomila does not give us practical guidelines for avoiding cross-cultural confusion. We have to mine them out of his elaborate academic argument. His prose does not make that easy.

To be fair, Gomila is aiming at solving much bigger problems that have bedeviled scholars since Chomsky.

- Does language influence the way we think? If so, how?
- Are there some forms of "thinking" that take place without language?
- If so, can we say that there are two forms of cognition, one nonverbal, the other verbal?

He argues that we have two thinking modes.

1. One set of processes is intuitive, fast, automatic, unconscious, implicit, parallel, and associative. Gomila considers this kind of "thinking" ancient, arising out of sensorimotor, bodily interactions with the world. He argues that these nonverbal cognitive abilities are very similar to what other primates have.
2. The other set of processes involve language: these processes are slower, more purposeful, more conscious, inferential, and flexible. Gomila calls this form of thinking "the verbal mind." This abstract,

discrete, propositional form of cognition, he argues, depends on the mediation of language. Language lets us describe what we can imagine, going beyond what we see in front of us, and allows us to think about thinking, giving us more control over the ways that we think.

Without language, we can point something out, issue an imperious demand, or simply show what we want. But with words, we can “say” the same things with more flexibility, detail, and complexity. Hence, Gomila argues, “Language labels and transforms preverbal experience, in a way that allows for new forms of cognitive control” (p. 119)

### Jonathan Price

Jonathan Price, an STC Fellow, has coached technical communication teams in an A to Z of high technology companies, focusing on online help, Web content, information architecture, and content management. He teaches Web writing and information architecture at UCSC.

## 158 Tips on mLearning: From Planning to Implementation

The eLearning Guild. 2013. Santa Rosa, CA: eLearning Guild. [ISBN 978-1-57387-462-5. 52 pages. Free at [www.eLearningGuild.com](http://www.eLearningGuild.com).]



Are you looking for ways to improve your educational offerings in your organization? Are your courses geared for computers in a classroom? How about thinking beyond the classroom setting and think about learning opportunities on mobile devices—mLearning?

Today's trend is away from PCs and laptops. People are now using tablets and smartphones, which let them be more mobile and work away from the office environment. More companies now are starting to think about how to train employees in a mobile environment. mLearning is different than traditional classroom learning by being spontaneous, private, portable, and informal.

In the eLearning Guild's free digital eBook, *158 Tips on mLearning*, you'll read tips from 23 different contributors working in the mLearning arena. The areas include topics about selling to stakeholders, managing projects, designing for mobile, selecting tools and platforms, working with media, managing and delivering content, and measuring success.

Having worked on mobile applications for my company, I found the following contributor tips to be good advice:

- Ajay Pangarkar suggests showing how your mLearning piece will contribute to an overall business objective.
- Megan McKee suggests always running a pilot before deploying. It is best to test your mLearning piece on an audience that is as close to your actual audience as possible. Have them provide you with feedback.
- Chad Udell suggests keeping the team small and agile. In doing so, you can test the content often and make necessary changes quickly and easily. This also helps reduce the product's cost.
- Patti Shank suggests analyzing your audience up front. Keep in mind the age range of your audience and what a suitable content length should be for them.
- Imogen Casebourne suggests using Quick Response (QR) codes. These codes are machine-readable labels that record information related to a particular item. You can use a QR code to deliver support, such as a document or a video, on a mobile device for how to operate a rarely used machine.

Check out the eLearning Guild Web site if you are interested in more eLearning resources. The Guild, a members-sharing-with-other-members group, produces conferences, has online forums, does research, has a job board, and does much more.

### Rhonda Lunemann

Rhonda Lunemann is a technical writer with Siemens PLM Software, a senior member of STC's Twin Cities Chapter, and a member and officer of the Hill Speakers Toastmasters Club (Club 4415).

## Lean UX: Applying Lean Principles to Improve User Experience

Jeff Gothelf. 2013. Sebastopol, CA: O'Reilly Media. [ISBN 978-1-449-31165-0. 134 pages, including index. US\$24.99.]



If you're a writer who's worked in the trenches of enterprise software development (but not at a global software company or some place that designs consumer products—places where author Jeff Gothelf could rightly proclaim “Agile methods are now mainstream” (p. 95)), then you are probably aware of two things. One, many people still don't

know what “Agile” means—even if it is “mainstream;” and two, once you find yourself on an Agile team, it's difficult to know where a technical communicator fits in. *Lean UX: Applying Lean Principles to Improve User Experience* illuminates answers to these quandaries. For its primary audience (anyone doing software development, or particularly Web site design), the book explicitly addresses the first quandary, making real breakthroughs in demystifying the Lean Startup/Agile mystique. And for those reading it through the technical communication lens, *Lean UX* implicitly addresses the second quandary, pointing out specific ways that professional writers can become integral and valued members of user experience (UX) design teams that are mostly composed of IT professionals.

Gothelf has made this densely informative, though thin, volume useful by structuring it as simply as he does. Section I—*Introduction and Principles* (chapters 1 and 2) explains in very straightforward terms the basic rationale behind combining Lean Startup (and ostensibly Agile) product development principles with state-of-the-art UX design methods to produce great online content and applications. Section II—*Process* (chapters 3-6) details the entire (though never fully “done”) Lean UX process from initial conceptualization through post-deployment feedback. Then, Section III—*Making it Work* (chapters 7 and 8) does a superb job of showing what changes are needed in our individual mindsets and our organizations' cultures for us to do more than give lip-service to cross-functional collaboration and make it part of the fabric of our work

environments, let alone to make Lean UX work well with typical Scrum (Agile) sprint cycles.

Gothelf incisively drives home the dual mantra of the Lean Startup/Agile philosophy, which he shows is inseparable: more collaboration, less documentation. This is such a key concept—there's no real-time shared understanding without it—and he does a very good job of articulating it.

“For many teams, collaboration is a single-discipline activity...working this way requires discipline-based teams to explain their work to one another...the result is a heavy reliance on detailed documentation” (p. 112).

However, for all of the talk about less documentation, technical communicators will love the discussion about “design studio”—the collective term for the informal collaboration sessions of Lean UX, which bear much similarity to collaborative writing sessions. Another pleasant surprise for those same readers will be the 10 pages that Gothelf devotes to elucidating how important “style guides” are to Lean UX. That's a concept borrowed from the print publication world that technical writers can sink their teeth into.

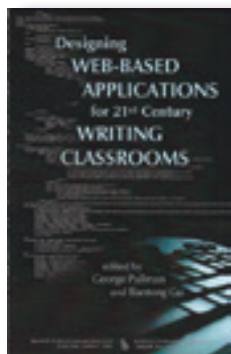
Lean UX design (along with the content strategy associated with it) is all about communicating better and faster what a team is learning. Is there a writer in the house?

### Steven Lemanski

Steve Lemanski, STC member and professional writer in information technology, regularly alternates between several genres—software documentation, feature articles, marketing white papers, and digital content. His BA in communication is from University of Colorado; and he is currently pursuing an MTC degree (master of technical communication) from Utah State University.

## Designing Web-Based Applications for 21<sup>st</sup> Century Writing Classrooms

George Pullman and Baotong Gu, eds. 2013. Amityville, NY: Baywood Publishing. [ISBN 978-0-89503-797-8. 252 pages, including index. US\$59.95 (softcover).]



*Designing Web-Based Applications for 21<sup>st</sup> Century Writing Classrooms* is an edited collection that addresses the problems that many writing instructors have faced in the classroom, such as having little or insufficient access to useful instructional technologies or being forced to use courseware that has little more functionality than an electronic gradebook. The

editors, George Pullman and Baotong Gu, both have extensive experience with the writing classroom.

Each chapter in *Designing Web-Based Applications for 21<sup>st</sup> Century Writing Classrooms* covers the authors' experience with implementing technology in the writing classroom. These uses range from practical and accessible applications that any writing instructor could implement, such as Chapter 12 which addresses using blogs as course management systems, to complex applications, such as Chapter 3, which covers Texas Tech's home-grown course management program, TTOPIC, and its metamorphosis into Raider Writer, a course management system with expanded capabilities.

Each chapter is relatively short and contains many screen shots to help explain the course management system being addressed. Unlike many similar edited collections that concern technology and the writing classroom, the language is accessible, and although the relevant literature is discussed in each chapter, the content avoids being overly theoretical. These characteristics are likely to make the book appealing to writing instructors who are looking for useful solutions for their course management issues as well as professors who are interested in the theoretical underpinnings of using one particular technology over another.

The greatest strength of *Designing Web-Based Applications for 21<sup>st</sup> Century Writing Classrooms* is how it asks the readers to rethink their method of teaching writing. Before I read this text, I was satisfied with my institution's course management system for teaching my

technical writing, professional writing, and composition courses. However, after reading this edited collection, I have started imagining how I might augment this software with other technologies to better facilitate peer review, collaborative writing, and other writing process aspects that our system does not currently support.

One minor criticism that I had concerns the book's cover. The small, thin, blue type on a black background is almost impossible to read, especially on the back cover. This is probably a small detail for most readers, but because the book is about technology and writing, the publisher should make sure that all aspects of the text practice the tenets of good writing and design.

### Nicole Dilts

Nicole Dilts is an assistant professor in the Technical and Business Writing Program at Angelo State University. Her research interests include technical communication for a Mexican-American audience and technical communication in the health fields.

## Saving the World: A Brief History of Communication for Development and Social Change

Emile G. McNany. 2012. Urbana, IL: University of Illinois Press. [ISBN 978-0-252-07844-6. 186 pages, including index. US\$25.00 (softcover).]



The title is no misnomer; this book really is a history of communication for development and social change. The initial words in the title—"saving the world" convey the enthusiasm and sense of possibility early adopters of this concept felt regarding its potential to alter the course of developing countries. The idea behind the concept is that

communication technologies can be used to bring content to people around the globe and that the content—be it educational material or news—can change lives. What is interesting about this text is that it explains the roots of this concept, which came about long before the Internet and social media existed. McNany writes, "Communication technologies bring content that has consequences for people everywhere...."



Thus, there is a long history of creating change with the help of the emerging information and communication technologies” (p. 3). Anyone who observed the Internet/social media fueled Arab Spring would concur, but even more so when they realize that this idea was developed in a time when television and radio were the emerging information and communication technologies.

*Saving the World* is a fascinating examination of how earlier technologies were applied to foster social change. It addresses the underpinnings of the movement; for instance, President Truman’s efforts to help developing countries as a way to stave off communism and make headway in the cold war. But it is, as McAnany asserts, biased. “This book is a biased account in that I have my own perspective and experience that limit the scope of the contents” (p. 4). His viewpoint is decidedly on the side of using emerging technologies to bring about social change. Anyone interested in a capitalist application might not find this narrative useful.

However, those who are interested in the concept of emerging technologies, communication, and social change would find *Saving the World* both interesting and helpful. It addresses the scholarly underpinnings of the concept and how it was applied. In other words, it gives much of what we take for granted based on communication application context. It addresses multiple paradigms and explores ideas such as whether communication for development works, participatory communication, and social entrepreneurship. *Saving the World* also includes a list of potential challenges for the future, which include finding funding, assessing success, harnessing innovation, and the changing human technology interface.

This book is an easy-to-read, well-organized document; while McAnany carefully relays theory, he does it in a concise way that anyone will find accessible. Those who work in academia will certainly find *Saving the World* helpful, but practitioners who work with emerging communication technologies will also find the book’s context and insight helpful.

### Carolyn Dunn

Carolyn Kusbit Dunn is an assistant professor at East Carolina University and an STC member. She teaches technical writing and her research interests are the use of technology in communication, risk and crisis communication, and discourse and power. She has worked in marketing and television journalism.

## Signs for Peace: An Impossible Visual Encyclopedia

Ruedi Baur, Vera Baur Kockot, and the Institute2Context, eds. 2013. Zürich, Switzerland: Lars Müller Publishers. [ISBN 978-3-03778-243-9. 598 pages. US\$55.00 (softcover).]



Do you ever find yourself looking for images or symbols for a project? Recently I was looking for an image to accompany the text for a poster on climate change. I finally found a pictograph for water pollution from the Globally Harmonized System published by OSHA.

Imagine a whole source of images on the subject of peace.

That’s what you get with this “impossible” visual encyclopedia, which shows images for peace from around the world, organized by a variety of categories. These categories include countries, such as Afghanistan; concepts, such as alter-globalization; and history, such as Tiananmen.

Why is this visual encyclopedia impossible? The editors, in their introductory essay, explain that it is easier to be against war than for peace, and that it is much easier to find images “for” peace than images “of” peace.

But *Signs for Peace: An Impossible Visual Encyclopedia* shows that it can be done, and that it has been done, when people are filled with passion for something, such as peace. The book aims to lead us to a “more aware treatment of images” (p. 36). Though it is difficult to review a book of images, let me describe a few of them that stood out for me.

One image of “agreement” shows workers at the Paris Peace Conference in 1946 collating documents. Though the digital era has moved us away from this kind of activity, technical communicators still spend time organizing documents online.

Another image reveals African children superimposed upon the stock pages of the newspaper—a stark contrast which needs no words of explanation, the best kind of graphic.

Amnesty International had two good images, one with a revolver made up of arrows that pointed in every conceivable direction, showing the never-ending effects

of violence. And of course, there is the iconic image of the lit candle surrounded by barbed wire.

In the category of “Bombs,” one simple image shows a barrel of artillery with a shell coming out of it, but the shell is turned around as if going back into the artillery. It is a cartoon of hope.

One of the most powerful images shows the corpses of women and children on a road through rice fields. At the top it says “Q. And babies?” and at the bottom: “A. And babies.”

One of my favorites shows three stacked boxes: two contain the words “Hiroshima” and “Nagasaki,” and the third is empty.

One final image of Iraq: It shows the Nike swoosh with a bomber and the words: “DON’T DO IT. Stop the war.”

*Signs for Peace* is a useful reference for any activist or technical communicator whose creative well has gone dry. If you’d like to see some of the images yourself, go to <http://peace.civic-city.org>.

I have nothing critical to say about it. All images are referenced and translated into English. It is beautiful.

### Charles R. Crawley

Charles R. Crawley is a part-time activist and full-time technical writer in Cedar Rapids, Iowa. His passions include peace, justice, the environment, and a well-written sentence.

## Rhetorical Accessibility: At the Intersection of Technical Communication and Disability Studies

Lisa Meloncon, ed. 2013. Amityville, NY: Baywood Publishing Company, Inc. [ISBN 978-0-89503-789-3. 240 pages, including index. US\$59.45 (softcover).]



The American with Disabilities Act (ADA, 1990) focused on making life’s activities accessible to those with disabilities. Subsequent legislation added to that requirement accessibility to information with a focus on Web page design. Unfortunately, designing information products for those with disabilities rarely appears in classes or parts of classes in

technical communication curricula. Meloncon’s *Rhetorical Accessibility: At the Intersection of Technical Communication and Disability Studies* hopes to change that.

*Rhetorical Accessibility* contains an Introduction and 11 chapters that address these issues as they apply to technical communications. Because of that approach, the book is primarily for teachers and students, although practicing technical communicators can benefit from it, especially Chapter 11, Resources. Other chapters review current research and point toward needed research.

While most chapters are for academics, some are for practitioners. Nonetheless, those for practitioners can be useful for academics and vice versa. What happens or should happen in the workplace when practitioners design information products for those with disabilities? Students need to know that before their internships. Meloncon wants the collection to start a scholarly conversation on this issue and then bring the ongoing results into the classroom.

The essays address disability issues from autism, poor reading, diabetes, and the visually impaired to Web design, Web standards, writing in corporations, and E-content.

The “rhetorical” of the title focuses on a communication theory called the “social construction of reality.” Directly addressed in Gretsell and Hulgins’ “Supercrisps Don’t Fly” (Chapter 4), it forms the basis for the other essays. The key is that meaning, deriving from the social context, leads to expectations, and if users are restricted because of a disability, they are not participating fully in social experiences.

Chapter 5, “The Care and Feeding of the D-Beast,” continues this discussion by evaluating the two metaphors associated with diabetes: those reflecting military operations and those equating diabetes with “the beast.”

Subsequent chapters discuss Web design and accessibility (Chapter 6), accessibility of online instruction (Chapter 7), international standards for Web design for persons with disabilities (Chapter 8), Web accessibility documents (Chapter 9), and the legal and policy drivers for E-content (Chapter 10). The volume concludes with an annotated list of resources.

The value of this collection lies in it starting a scholarly conversation among scholars and practitioners of technical communication and scholars of disability studies. Readers not used to academic prose may be put off by the academic language and the number of references. But if they produce accessible information products—especially for the Web—they will find a lot of value to help them in their work.

For practitioners, a copy in the company library would be valuable; for academics and theory students, personal copies would expand their education. However, the price-to-value received may be a determining factor.

### Tom Warren

Tom Warren is an STC Fellow, Jay R. Gould Award for Excellence recipient, and professor emeritus of English (technical writing) at Oklahoma State University, where he established the BA, MA, and PhD technical writing programs. Past president of INTECOM, he serves as guest professor at the University of Paderborn, Germany.

## The Best of Brochure Design 12

Public. 2013. Beverly, MA: Rockport. [ISBN 978-1-59253-833-1. 224 pages. US\$45.00.]



It often seems as though design keeps moving away from print and toward digital due to a wide range of reasons. Then books like this one come along to challenge that notion directly. Well-designed and executed brochures are still being printed and distributed. *The Best of Brochure Design 12* is an impressive, if small,

collection of these printed brochures. The authors and

editors of this collection, design studio Public, indicate in the introduction that they “should really have called this book *The Best of Brochure Design Sent to Public*” (p. 3), as what appears in the book is just a slice of the whole industry. In that sense, the book is an exciting, instant-photo snapshot of what is happening with brochure design.

The book is divided by the size of the brochures and they range from very small, pocket-sized books to “brochures” with the same size and folds as a regular newspaper. Each brochure gets at least one page with several pictures. Often, hands appear in the photos holding the brochure open, helping to give readers a sense of scale. It is evident that with some of these projects, the designers at Public really wanted to photograph every single page of the brochure. Those instances are naturally more compelling than others as readers get a better feel for the brochure, an important element in a book like this one. Make no mistake, it is designer eye candy from beginning to end.

It is interesting to see how the designers of each brochure rethought what counts as a brochure, expanding the definition to include a wider range of formats. However, I found it somewhat disappointing to see that rethinking “brochure” meant jumping to a different format (like “book” or “newspaper”) and calling it a brochure. I came to the book with the expectation of seeing brochures that began with what we typically think of as a brochure and then pushed up against those boundaries into new and interesting territory.

*The Best of Brochure Design 12* itself is as well designed as the examples it showcases. It is evident that Public tried to capture the essence of each brochure they included. They did well in giving readers an idea of each brochure. However, in the introduction, the authors refer to the experience of a printed brochure and I completely agree. There is something about holding a printed piece in hand. I hoped to have that connection to the examples in the book, but that got lost in translation. For example, one of the “brochures” is a book of about 500 pages produced by a design firm to show 147 of their best projects. There are 10 photos of this book. Granted, it would have been impossible to include photos of every page of every brochure. Nevertheless, I had difficulty not feeling like I had missed out on something when I flipped the last page.

### Spencer Gee

Spencer Gee holds a master’s degree in Composition and Rhetoric and teaches Freshman Composition at the University of Central Oklahoma. He also is working toward a degree in graphic design.



## Word Up! How to Write Powerful Sentences and Paragraphs (And Everything You Build from Them)

Marcia Riefer Johnston. 2012. Portland, OR: Northwest Brainstorms Publishing. [ISBN 978-0-985-8203-0-5. 270 pages, including index. US\$15.95 (softcover) US\$7.55 (Kindle).]



One barrier to effective technical writing today is time. Time to find relevant information. Time for consumers to “connect” with content from an SME. Time for those who create content to read yet another “how to” book on good writing skills.

Marcia Riefer Johnston has conquered time on all these levels. She has written *Word Up! How to*

*Write Powerful Sentences and Paragraphs (And Everything You Build from Them)* in bite-sized chunks that you can master in brief “sittings.” Johnston has condensed the topic content from 23 pages into 2-3 pages, while still making her book fun to read!

*Word Up!* is definitely a “must have/must read” addition to your reference library. If you do buy the paperback, I doubt that it will remain on your bookshelf for long. I am on my second paperback version because the first one looks like a thermal map, due to my endless multi-colored highlights and clouds of marginal notes. I also have *Word Up!* on Kindle, where I frequently refer to it while on the road.

Why? Johnston clears up many English language ambiguities and gives excellent examples on how to reduce word count, get to the point, and simplify your English content. As Scott Abel, Ann Rockley, Rahel Baille and countless other experts have made clear, Simplified English is essential to Machine Translation (MT). Our future career success depends upon how effectively MT can convey our intent for non-English speaking audiences.

Your first reading will also jolt you into realizing just how ambiguous and “context sensitive” our normal use of English is. Although Johnston doesn’t focus on this issue as a chapter-titled topic, each page of *Word Up!* meets the challenges of overcoming ambiguity.

Although I am a big fan of eBooks, I prefer the paper version of *Word Up!* because I can leaf through it and visually spot relevant prescriptions from catchy

subheads and boxed maxims. A striking feature of this book is its relatively infrequent use of bulleted or numbered lists. Let’s face it, we all are prone to overusing “stair step” nested lists. Johnston does effectively use striking (and humorous) “before and after” examples.

Three of my favorite sections deal with commas, hyphens, and “How Not to Do How-To.” Since we all inhabit a world of rapidly diminishing attention spans among our readers, we couldn’t receive too much advice on the last topic.

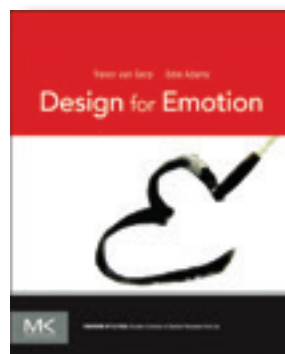
Although I’ve written this review with technical communicators in mind, *Word Up!* is an ideal word/sentence/paragraph guide for anyone who does any type of writing. Even your Tweets and Facebook postings could benefit from Johnston’s prescriptions. *Word Up!* has frequently hit the “Top 10” technical communication list on Amazon. You will know why once you have read twenty pages of this book.

### Maxwell Hoffmann

Maxwell Hoffmann is an STC member with the Willamette Valley chapter. He has more than 30 years of technical communication experience and is best known to many for his role as a technical communication product evangelist at Adobe Systems.

## Design for Emotion

Trevor van Gorp and Edie Adams. 2012. Waltham, MA: Morgan Kaufmann. [ISBN 978-0-12-386531-1. 218 pages, including index. US\$34.95 (softcover).]



Trevor van Gorp and Edie Adams’ *Design for Emotion* intends to be a primer on consumer psychology for designers of both physical and digital products. The book does offer some valuable insights for technical communicators interested in design and usability, but overall, its advice may be

more applicable for marketing professionals.

The authors’ aim to enable you to “encourage the formation of relationships between people and the products you design” (p. xv). The book’s six chapters can be loosely grouped into two parts: emotional psychology and practical application. In the first chapter,



“Why Design for Emotion?,” the authors assert that emotion shapes experience and decision making; because emotional reaction from a consumer is inevitable, “All design is emotional design” (p. 8). Effectively, they argue that since your consumers will have an emotional reaction to your product, you ought to give your product an engaging design personality that will help consumers form a relationship with the product.

Chapters 2, 3, and 4 provide background models of emotional psychology. van Gorp and Adams employ a range of not particularly helpful diagrams of the brain and charts about affective states, but there are some practical tidbits in this section as well provided on pages 28 and 40. Specifically, the authors discuss “flow,” or pleasurable focused attention to a task, and explain that it occurs when the users face challenges appropriate to their skill levels; they suggest that “[b]ecause skill levels differ from one user to the next, interfaces should be very user-friendly for novices, but also allow more advanced users to find challenges appropriate for their skill level” to keep them from becoming bored (p. 43).

Chapter 5 introduces the authors’ core design model: Attract, Converse, and Transact, or A.C.T. Your product must attract users aesthetically, but it must also engage them in a “conversation” of user action and product feedback (p. 138). The authors use the example of predictive typing: the product responds to the user action of typing by anticipating what the user intends. On a Web site, “visual hierarchy,” “consistent navigation structure,” and graphic elements like color and movement all contribute to interactive dialogue between user and product (p. 150). Finally, if trust has been established through conversation, the relationship between product and user ends in a transaction.

The authors conclude with a chapter that includes interviews from several designers who have used emotional design principles in their products. Although interesting, this portion of the book does not provide as much practical advice as Chapter 5.

I would recommend *Design for Emotion* to technical communicators who have an active role in product design and want to learn more about the emotional psychology of consumers. The authors’ A.C.T. model could prove useful to anyone who shares responsibility for the information architecture and visual design of a Web site, software, or promotional materials.

### Bonnie J. Shamp Winstel

Bonnie J. Shamp Winstel is a technical writer for a small software company in Huntsville, Alabama. She received her master’s degree in English and Technical Communication at the University of Alabama-Huntsville in May 2013 and is now a New TC Professional member of STC.

## Foundation HTML5 with CSS3: A Modern Guide and Reference

Craig Cook and Jason Garber. 2012. New York, NY: Springer. [ISBN: 978-1-4302-3876-8. 412 pages, including index. US\$34.99 (softcover).]



*Foundation HTML5 with CSS3: A Modern Guide and Reference* is directly geared toward benefiting the technical writer; however, it is a great book for the beginning Web page creator. The information is clearly laid out, making it extremely easy to find a section right away. In the Introduction, Cook and

Garber list certain downloads that would also be helpful for learning computer languages for Web publishing.

Chapter 1 is for the beginning Web publisher. It introduces the basics of the World Wide Web. “The Web is fundamentally a text-based medium, and that text is usually encoded in HTML” (p. 2). There are several definitions listed so that the beginning Web page creator can understand the terms for the job being conducted, which is crucial to the Web designer. The authors then explain what exactly HTML is and how it has progressed to HTML5.

With learning any new language, it is highly beneficial to first learn the basics. The same goes with computer languages, such as HTML and CSS. Chapter 2 dives into the basics of these languages. Each section thoroughly explains the parts of CSS and how the outcome should be. It even provides correct and incorrect examples. This is extremely helpful to get a better idea of how the language should look to properly create a Web page.

Each chapter explains the purpose of the language, how to interpret it, and how to use it to create well-planned and designed Web pages. There are in-depth examples throughout each chapter and boxes of useful information and helpful hints.

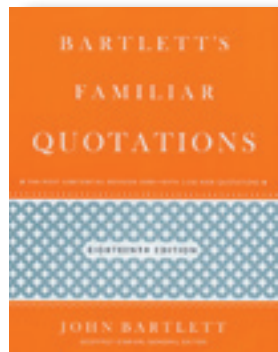
*Foundation HTML5 with CSS3: A Modern Guide and Reference* is an asset to any technical writer, especially if you are trying to break into writing Web content. Knowing HTML is a vital part of writing Web content. Cook and Garber have done an excellent job creating a book about HTML for all levels to understand and use.

### Margaret Wagner

Margaret Wagner is a student in the University of Houston-Downtown majoring in professional writing with a minor in digital media. She is providing book reviews and performing other intern-related tasks for the STC Book Reviews Editor of the *Technical Communication* journal.

## Bartlett's Familiar Quotations

John Bartlett. 2012. 18<sup>th</sup> ed. New York, NY: Little, Brown and Company. [ISBN: 978-0-316-01759-6]. 1438 pages, including index. US\$50.00.]



Massachusetts bookseller John Bartlett was a collector of thoughts, jotting down “passages, phrases, and proverbs” (p. vii) he deemed familiar and worthy of collecting. The Bible, Shakespeare and other British writers heavily influenced Bartlett’s first edition of *Familiar*

*Quotations*, printed in 1855.

But what he judged important and familiar in the nineteenth century, and worth noting for future generations, has changed. Indeed, it changes with each edition, as entries appear and disappear. Since the earlier editions, Mae West, Winston Churchill, Ernest Hemingway, astronauts, computer wizards and Harry Potter have joined the ranks of the quotable. Others have dropped by the wayside.

Today, we have the 18th edition, which, as editor Geoffrey O’Brien notes, “has opened itself to...mass journalism, recording, movies, radio and television

broadcasting, and now the Internet” (p. viii). Barack Obama and *South Park* appear for the first time as do Weng Wei, Warren Buffett, and Sarah Palin. The last entry in this edition is Justin Timberlake’s immortal words about a well-known wardrobe malfunction.

Along with the selection of entries, the arrangement, layout and added features of *Bartlett’s* change at the discretion of the editor. The current page layout is clean, and author names stand out boldly on the page, making them easy to distinguish from the quoted matter. A useful feature is the guide to using *Bartlett’s*, which helps readers understand the chronological arrangement that provides the book’s underlying structure. It also gives specific guidance on using the index of authors and the all-important main index, arranged by keywords, which facilitates the search for quotations if the author is unknown.

I have never read *Bartlett’s Familiar Quotations* “straight through,” as O’Brien claims in his introduction would make for interesting reading. Like many people, I am more likely to use it simply to find the source of a familiar quotation. But, as I examined it more closely, *Bartlett’s* did present a fascinating arc of what O’Brien calls the “history of thought and expression, a way for a reader to sail rapidly over centuries and pass them in review” (p. vii). The quotations reveal what was on the minds of those worthy of being quoted in any given time, from ancient Egypt to the present day, as well as their styles of expression. For a writer who must often convey content succinctly, these quotations also provided me examples of thoughts rendered clearly in a few choice words.

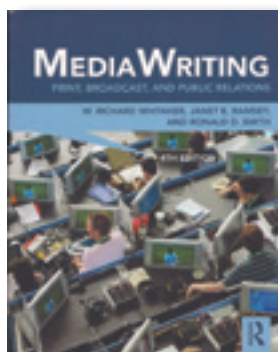
Much like a dictionary, in which entries come and go based on their general usage, *Bartlett’s Familiar Quotations* holds up a mirror to society. As I noted the recent additions, particularly the many song lyrics, I was curious about the selection process. How are quotations deemed worthy of occupying the volume’s limited space? The editor could make *Bartlett’s* even more interesting by discussing the process, even briefly, somewhere in the book.

### Linda Davis

Linda M. Davis is an independent communications practitioner in the Los Angeles area. She holds an MA in Communication Management and has specialized in strategic communication planning, publication management, writing, and editing for more than 25 years. Linda is active in the STC Los Angeles chapter.

## MediaWriting: Print, Broadcast, and Public Relations

W. Richard Whitaker, Janet E. Ramsey, and Ronald D. Smith. 2011. 4th ed. New York, NY: Routledge. [ISBN 978-0-415-88803-5. 380 pages, including index. US\$64.01 (softcover).]



The 4th edition of *MediaWriting: Print, Broadcast, and Public Relations* presents itself as “an introductory, hands-on textbook for students preparing to write in the current multimedia environment” (p. i). I do have to agree. This textbook encompasses every detail a

student will need in media writing. It also connects communication history, media theory, and business to the student’s potential role in our changing communication and media existence by in-depth examination of what media writing is, the legalities and ethics, and how to accurately accomplish the media writing task in the respective working environment. The Information and It Happened to Me boxes provide real-time relevance. The chapter questions and exercises are engaging and strengthen the foundation of the text. The additional reading provides clear sources for further consideration. A companion Web site accompanies the textbook as a supplementary resource.

*MediaWriting* claims to reference “the *hows*” and “the *whys*” of media writing, yet this textbook goes beyond by answering the basics of the lead: who, what, where, when, and why. The chapters reference many important concepts to student learning: communication theory relevance, the lead, writing legally and ethically, proper writing, topic/subject analysis, gathering information and sources, the process and tools needed to formulate a story accurately, different forms of media writing, audience analysis, correct language skills, reporting types and locations, the *New New Media* age and platforms, other writing areas, the public relations role, writing in support of or on behalf of an organization, influencing the audience, the current communications field, and potential career choices and opportunities.

If these topics, which merely give quick insight into the enriching sections found from cover to cover, are ones you would like your students to address, then this is the right textbook for you. *MediaWriting: Print, Broadcast, and Public Relations* presents crucial information that covers three media related areas in broad context yet with narrow methods, presents factual information, and proposes questions and exercises to make the student’s learning a practical application process.

### C. Danielle Hart

C. Danielle Hart is the editor of 256 Magazine, a North Alabama publication. She received her BA in English from Georgia Southern University in 2003. Currently, she is pursuing a graduate certificate in Technical Communication and master’s degree in English from The University of Alabama in Huntsville.

## The Mobile Frontier: A Guide for Designing Mobile Experiences

Rachel Hinman. 2012. Brooklyn, NY: Rosenfeld Media. [ISBN: 978-1-933820-55-2. 264 pages, including index. US\$39.00 (softcover), US\$22.00 (PDF, EPUB, MOBI).]



Rachel Hinman’s *The Mobile Frontier: A Guide for Designing Mobile Experiences* provides a wide variety of techniques you can use to meet the needs of your mobile users. She draws on her extensive expertise in mobile design to present valuable information in an engaging manner.

Hinman points out that it’s essential to consider the user’s mobile context. For example, mobile users will have interruptions from the environment, so make mobile content easy to scan. Plan for partial attention, enable users to easily exit and return to tasks, and provide a seamless transition between multiple mobile devices.

It’s also important to optimize the way that users access mobile content. To address this, Hinman discusses three ways of delivering mobile user experience: a mobile-optimized Web site; a native app that users can download onto a mobile device; and a mobile Web app that users can access from a mobile browser. Hinman also provides insights on responsive Web design.



Hinman provides a useful summary of common mobile user experience patterns, including examples, illustrations, and screenshots of actual mobile content. She also shares key mobile considerations, such as design for the cloud, progressive disclosure, content as the interface, and mobile input. Hinman also looks at best practices for motion and animation, and key strategies for optimizing mobile touch, gestures, voice input, and sound.

The author asserts that mobile prototyping is a key strategy for ensuring a positive mobile user experience. She details a variety of mobile prototype tools and methods, and provides suggestions for when to use each technique.

Throughout, case studies of mobile design experts show how principles discussed in the book are used in actual mobile products. The book's appealing layout, ample illustrations, and chapter summaries make it engaging as well as informative. *The Mobile Frontier: A Guide for Designing Mobile Experiences* gives you the big picture to help you meet the needs of your audience on mobile devices.

### Marta Rauch

Marta Rauch is an STC Associate Fellow with over 20 years of experience in technical communication and mobile app content strategy. Marta is the mobile content track manager for STC Summit 2014, and Vice President for the STC Silicon Valley chapter. She holds a BA from Stanford University.

## To Save Everything, Click Here: The Folly of Technological Solutionism

Evgeny Morozov. 2013. New York, NY: Public Affairs. [ISBN 978-1-61039-138-2. 416 pages, including index. US\$28.99.]



Evgeny Morozov's *To Save Everything, Click Here* critiques the “solutionism” and “Internet-centrism” that dominate conventional wisdom about the “Internet.” Morozov argues that rather than a new conceptual domain that “ruptures” (p. 44) and redefines our traditional modes of communication and value formation, the “Internet” is

actually a set of technologies that can be used as a more efficient way of achieving traditional ends, good or bad.

The “Internet” is not, as proponents claim, the cause of our value formation—something our behavior and institutions need to conform to—but the consequence of it, and needs to be treated as such. To think otherwise is to succumb to “solutionism,” the technocratic notion that all problems are amenable to technical solution; and “Internet-centrism,” the view that social and cultural reality should be revised to fit the template of the “Internet,” rather than the other way around.

Morozov reveals the inner contradictions of many Internet-centric assumptions. Algorithms are considered “objective” but actually represent some selection of inputs (pp. 143-144). “Nudging,” pretending to offer objective menu choices, subtly and insidiously guides decision-making by prompting certain options (pp. 198-201). “Disintermediation” technology appears to eliminate middlemen yet also creates new ones, resulting in “hyperintermediation” (p. 165). The goal of total transparency—such as outing all contributors to a political cause to allow for informed voting—actually “can be used to suppress virtually any kind of political cause” (p. 64). And the unforeseen result of “predictive policing,” making arrests before the crime is committed, can lead to totalitarianism (p. 182).

No Luddite, Morozov recommends revising, not eliminating, the Internet by rethinking usability. Instead of eliminating “friction”—the human interaction necessary to operate a product or system—and surrendering individual choice to automated systems operating invisibly and controlled by others, we should design products and systems with enough friction that individuals can decide for themselves whether to continue using the product.

The Forget Me Not reading lamp reminds users of their energy consumption by gradually dimming unless touched. Classical technocratic solutions automatically shut off the lamp or “nudge” users to choose a pre-determined option. Here individuals can decide on their own whether to continue using the lamp, based on increased awareness of their resource usage. Moral judgment returns to the user, but in an informed way. Used this way, technology “can highlight complex issues that are very hard to see in a frictionless world” (p. 327). It can raise consciousness without denying authentic individual freedom.



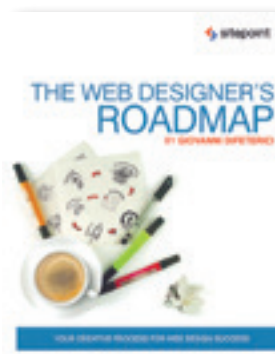
Though needing some editing and condensation, and sometimes tendentious, Mozorov's argument remains cogent and necessary, especially considering the ubiquitous Internet-centrism of most commentary. Dreams of technocratic utopia falter when specifics are examined, and a more grounded and thoughtful re-evaluation is needed to achieve the authentic liberation of the self-promised, but thus far compromised, by naïve visions of "the Internet." Mozorov proves that.

### Donald R. Riccomini

Donald R. Riccomini is a member of STC and a lecturer in English at Santa Clara University, where he specializes in teaching engineering and technical communications. He previously spent twenty-three years in high technology as a technical writer, engineer, and manager in semiconductors, instrumentation, and server development.

## The Web Designer's Roadmap: Your Creative Process for Web Design Success

Giovanni DiFeterici. 2012. Collingwood, Australia: O'Reilly Media. [ISBN 978-0-9872478-5-8. 174 pages, including index. US\$39.95 (softcover).]



Giovanni DiFeterici's *The Web Designer's Roadmap: Your Creative Process for Web Design Success* is a nice resource for technical communicators, both experienced and early in their careers, who find themselves needing to integrate the creative side of Web design into their workflow. In a very short,

information-packed 174 pages, including index, DiFeterici strives to allow his readers "to be able to communicate [their] ideas so that [they] can interact effectively with clients and the rest of [their] team" (p. xi).

DiFeterici, who has spent his career as an illustrator, designer, and front-end developer, regularly speaks at conferences about creativity, interface design, and art. Besides the typical aspects of Web design, he provides information about art history before exploring the phases of the design process and incorporating them into your workflow.

In the book's seven chapters, you'll go on a journey that starts with learning why the creative aspect of design is important, continuing through history, form, function, tried-and-true patterns, and concludes with a look at tools and applications that will make your designing life easier. As with many Sitepoint titles, this book offers a quick and understandable read that many can complete in the span of a cross-country flight.

The information in Chapter 3 about gathering your resources alone justifies the book's cost. As important as providing insight into setting up the workflow of designing a Web site, DiFeterici provides caveats throughout the book that will prevent you from falling into pitfalls that can be catastrophic to your project's success.

*The Web Designer's Roadmap* structure is perfect for the busy person who is looking for a book that is effectively organized and can be pulled as a quick reference right off the shelf. If you prefer a tome of detailed (and often outdated) information, this isn't the book for you.

As a consultant who has worked with small businesses as they have developed their Web presences, I was a little concerned that *The Web Designer's Roadmap* would be a bit introductory for my needs. I was delighted to find that along with principles of sound Web design, I found new and effective ways to work with my clients to ensure we take them on a logical journey from needs analysis to publication. By the time I finished the book, I had a list of several things I will integrate into our processes as we work with our clients as we design or redesign their Web sites.

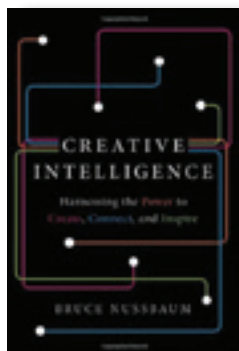
In a field of numerous other books of its nature, *The Web Designer's Roadmap* delivers exactly what it promises and helps its readers integrate the creative Web design processes in a successful manner. It's a good book to refer to before embarking on any Web design project. I'm looking forward to applying things I learned in my next site redesign project.

### Louellen Coker

Louellen S. Coker has more than 15 years in public relations, marketing, Web and instructional design, and technical writing/editing. She has an MA in Professional and Technical Communication, is founder of Content Solutions, STC Associate Fellow, and past Lone Star Community president. She conducts workshops about effective use of social media and portfolios.

## Creative Intelligence: Harnessing the Power to Create, Connect, and Inspire

Bruce Nussbaum. 2013. New York, NY: Harper Business. [ISBN 978-0-06-208842-0. 352 pages, including index. US\$28.99.]



In a constantly changing world of science, business and technology, there is much speculation over what drives innovation, intelligence, and entrepreneurship. Is there a way to assess someone's ability to create a successful business, as Steve Jobs and Mark Zuckerberg did? Nussbaum argues throughout his book *Creative*

*Intelligence: Harnessing the Power to Create, Connect, and Inspire*, that although the abilities of Jobs and Zuckerberg are hard to measure objectively, there are concrete skills associated with their success. These skills are not gems of a genius; we can practice them in our daily life. Nussbaum argues that they are the heart of entrepreneurialism and that creativity is the backbone of a new emerging theory of Indie Capitalism—an economy based on the idea that creativity drives capitalism. Overall, he argues that although we think geniuses are born with innate abilities, many of their eureka moments were the result of years of hard work.

Nussbaum, himself an expert in design and innovation, had a career quest to tie together a common trait of successful companies like Facebook and Apple. Was it the number of patents awarded or the amount of money spent on research that resulted in such powerful and transformative companies? He determined “creativity” to be their common component.

He identified five competencies of creativity:

- **Knowledge Mining:** Steve Jobs' integration of calligraphy into the Apple computer is based on his having audited a class on calligraphy for fun during college.
- **Framing:** Crowdfunding on the Internet changed fiscal sponsorship from a practice of the wealthy to a community endeavor open to anyone with Internet access. Many small donations now compete with the National Endowment for the Arts in the amount of money raised.

- **Playing:** SimCity (video game) teaches people city planning by turning it into a game.
- **Making:** Web sites for marketing products online have allowed “homegrown” to become mainstream and accessible to everybody.
- **Pivoting:** The creation of Instagram illustrates the most basic pivoting. Burbn was a location check-in app that was not successful. The photo app within the program, however, received a lot of traffic. The founders ditched their original business and eventually sold Instagram to Facebook for billions.

All are fluid skills that we can practice, hone, and perfect. Many of Nussbaum's arguments advocate a liberal arts education where specialization does not occur. He argues that it is the person's passion for a topic that unleashes creativity. Although idealistic, Nussbaum's arguments are unrealistic. A liberal arts education, while considered a well-rounded survey of subjects, cannot be tied to an increase in salary or any kind of promotability within the business world.

Overall, Nussbaum believes we are moving toward a more creative economy. Indie Capitalism is the new wave. In August 2012, Apple became the most valuable company in history based on its capability to create and rewrite the ecology of computers. Nussbaum argues that the skills of creativity will birth more Apples in society and drive our economy to new heights of excellence.

### Julie Kinyoun

Julie Kinyoun teaches chemistry at local community colleges in southern California. As a freelance writer, she writes about biological, physical and chemical sciences for local and national publications. Julie holds an MA in chemistry from San Diego State University.



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